(2)

Supreme Court, U.S.
FILED
AUG 23 1994
OFFICE OF THE CLERK

94-143

No. 94-

IN THE

Supreme Court of the United States

OCTOBER TERM, 1994.

ALFRED NELSON, EVELYN NELSON,
LEWIS HICKS III, AND BERNICE HICKS,
Petitioners,

v.

COMMONWEALTH OF MASSACHUSETTS AND
TOWN OF CHATHAM,
Respondents.

ON A PETITION FOR A WRIT OF CERTIORARI TO THE
MASSACHUSETTS SUPREME JUDICIAL COURT

BRIEF IN OPPOSITION FOR THE COMMONWEALTH OF MASSACHUSETTS

SCOTT HARSHBARGER
Attorney General
of Massachusetts

WILLIAM L. PARDEE*
MADELYN MORRIS
Assistant Attorneys General
1 Ashburton Place
Boston, MA 02108
(617) 727-2200
**Counsel of Record*

BEST AVAILABLE COPY

109 pp

Question Presented

May the Petitioners maintain their taking claim where the Massachusetts agency has not yet issued a final decision on their permit and variance applications, where the agency proceedings are neither futile nor excessively long, and where the Petitioners have had the full use of the property throughout the administrative process?

Table of Contents.

Statement of the Case 2

Summary of the Argument 7

Argument 9

I. Consistently With Long-Standing Precedent, the Massachusetts Courts Correctly Held That the Nelsons Could Not Maintain Their Taking Claim Until They Obtained A Final Decision On Their Permit And Variance Applications. 9

II. Consistently With Well-Established Precedent, The Massachusetts Courts Correctly Concluded That It Was Not Futile For The Nelsons To Pursue Their Administrative Remedies. 11

III. Since the Administrative Process Has Not Been Shown To Be Futile, The Nelsons Cannot Avoid The Final Decision Requirement. 14

A. The Nelsons Cannot Establish A Taking Solely Because It Takes Time To Complete The Permitting Process. 14

B. The Nelsons Cannot Rely On Coastal Flooding To Establish A Taking By Physical Invasion. 16

IV. The Massachusetts Courts Properly Handled The Nelsons' Facial Challenge To The Regulations. 18

Conclusion 19

Table of Authorities.

Cases.

1902 Atlantic Ltd v. United States,
26 Cl. Ct. 575 (1992) 16

Agins v. Tiburon, 447 U.S. 255 (1980) 15

California v. Taylor, 353 U.S. 553 (1957) 17

Commonwealth v. Alger, 61 Mass. 53 (1851) 18

Commonwealth v. Tewksbury,
52 Mass. (11 Metc.) 55 (1846) 18

Dolan v. City of Tigard, ___ U.S. ___,
1994 Westlaw 876693 (1994) 11

Dufau v. United States, 22 Cl. Ct. 156 (1990) 16

First Evangelical Lutheran Church of Glendale v. County of Los Angeles, 482 U.S. 304 (1987) 15

Gilbert v. City of Cambridge,
932 F.2d 51 (1st Cir. 1991),
cert. denied, 112 S.Ct. 192 (1991) 11, 19

Hodel v. Virginia Surface Mining and Reclamation Ass'n, 452 U.S. 264 (1981) 10

Kinzli v. City of Santa Cruz,
818 F.2d 1449 (9th Cir. 1987),
cert. denied, 484 U.S. 1043 (1988) 13

Lawn v. United States, 355 U.S. 339 (1968) 17

Lucas v. South Carolina Coastal Council, 112 S.Ct. 2886 (1992) 10

MacDonald, Sommer & Frates v. Yolo County, 477 U.S. 340, *reh. den.*, 478 U.S. 1035 (1986) 10, 13

Michaelson v. Silver Beach Improvement Association, Inc., 342 Mass 251, 173 N.E.2d 273 (1961) 18

Nectow v. Cambridge, 277 U.S. 183 (1928) 19

Pennel v. San Jose, 485 U.S. 1 (1988) 19

Pumpelly v. Green Bay Co., 80 U.S. (13 Wall.) 166 (1871) 17, 18

Sequin v. City of Sterling Heights, 968 F.2d 584 (6th Cir. 1992) 11

Smithfield Concerned Citizens v. Town of Smithfield, 907 F.2d 239 (1st Cir. 1990) 19

Southern Pacific v. City of Los Angeles, 922 F. 2d 498 (9th Cir. 1990), *cert. denied*, 112 S.Ct. 382 (1991) 19

Southview Associates Ltd. v. Bongartz, 980 F.2d 84 (2d Cir. 1992), *cert. denied*, 113 S.Ct. 1586 (1993) 10, 11

Traweek v. City & County of San Francisco, 920 F.2d 589 (9th Cir. 1990) 11

United States v. Lynah, 188 U.S. 445 (1903) 17, 18

United States v. Riverside Bayview Homes, 474 U.S. 121 (1985) 7, 10

Williamson County Regional Planning Comm'n v. Hamilton Bank of Johnson City, 473 U.S. 172 (1985) 10, 13, 15, 19

Wilson v. Commonwealth, 413 Mass. 352, 597 N.E.2d 43 (1992) 14, 16

Massachusetts Statutes and Regulations.

General Laws of Massachusetts

M.G.L. c. 30A, § 14 4

M.G.L. c. 131, § 40 2, 5

M.G.L. c. 30, §§ 62-62H 4

Code of Massachusetts Regulations

301 C.M.R. 11.01(4) 4

310 C.M.R. 10 4

310 C.M.R. 10.06 3, 6

310 C.M.R. 10.20 5

310 C.M.R. 10.28 5, 14

310 C.M.R. 10.30 5

310 C.M.R. 10.36 3, 14

NO. 94-

IN THE

Supreme Court of the United States

OCTOBER TERM, 1994.

ALFRED NELSON, EVELYN NELSON,
LEWIS HICKS III, AND BERNICE HICKS,
Petitioners,

v.

COMMONWEALTH OF MASSACHUSETTS AND
TOWN OF CHATHAM,
Respondents.

ON A PETITION FOR A WRIT OF CERTIORARI TO THE
MASSACHUSETTS SUPREME JUDICIAL COURT

BRIEF IN OPPOSITION FOR THE COMMONWEALTH OF MASSACHUSETTS

The Commonwealth opposes the Petition for a Writ of Certiorari, because the decision of the Massachusetts Appeals Court, remitting the Petitioners to their administrative remedies, in no way conflicts with established law with respect to any federal question, and because there is no reason why this Court should review the Petitioners' claims before the Commonwealth has reached a final decision on the Petitioners' application to build seawalls.

Statement of the Case

The Petitioners Alfred Nelson, Evelyn Nelson, Lewis Hicks III and Bernice Hicks (the "Nelsons"), own residential properties located on a coastal dune in Chatham Massachusetts.[1] (Respondent's Appendix ["Resp. App."] 64). In January 1987, a breach in the barrier beach left these properties exposed to the ocean. (Resp. App. 65). About two and a half years later, the Nelsons applied for permits[2] under the Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40, to build stone seawalls to protect their properties.[3] (Resp. App. 60). They

---

[1] Mr. and Mrs. Nelson own two parcels of land, and Mr. and Mrs. Hicks own a non-abutting parcel 1000 feet south of the lots owned by Mr. and Mrs. Nelson. (Resp. App. 65-66).

[2] Mr. and Mrs. Nelson did not begin the permitting process until June 22, 1989, two and a half years after the breach. Mr. and Mrs. Hicks did not file a permit application until February 5, 1990, more than three years after the breach. Petitioners' Appendix ("Pet. App." 25). These initial permit applications were withdrawn. The permit applications that are the subject of the ongoing administrative proceedings were commenced by Mr. and Mrs. Nelson on December 23, 1991 and by Mr. and Mrs. Hicks on May 15, 1992. (Pet. App. 34).

[3] The Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40, promotes certain public interests including flood control and storm damage protection. The Act requires a permit for the construction of coastal engineering structures on coastal dunes or banks. This requirement allows the Massachusetts Department of Environmental Protection the opportunity to determine whether a dune or bank is significant to any of the Act's protected interests, including flood control and storm damage prevention, and, if so, whether the proposed project would adversely

subsequently applied for variances from the requirements of the Wetlands Regulations. (Resp. App. 80). *See* 310 C.M.R. 10.36.

In 1990 and again in 1992, the Massachusetts Department of Environmental Protection (the "Department") issued initial decisions denying the Nelsons permission to build seawalls. (Pet. App. 31-33, 45-48, 52-59, 72-76). The Department determined that because they would aggravate flooding and impose storm damage on adjacent properties, seawalls could not be permitted under the Wetlands Regulations. Consequently, the Department suggested that the Nelsons use other protective techniques.[4] (Petitioner's Appendix ["Pet. App."] 31-33, 45-48, 55-59, 72-76).

In issuing these permit denials, the Department advised the Nelsons of their right to appeal by requesting an adjudicatory hearing. (Resp. App. 54).[5] The Department also informed

---

affect any of these interests. To prevent such adverse effects, the Wetlands Regulations allow the Department to issue orders ensuring that the proposed structures complies with the performance standards set forth therein. 310 C.M.R. 10.06.

[4] Alternative flood control techniques include beach nourishment, the construction of groins and jetties, and raising the houses. (Resp. App. 76).

[5] If the Nelsons did not appeal the initial permit denials, these denials would become the final decisions of the Department. Otherwise the Department would issue final decisions following the adjudicatory hearing. The Nelsons would have the right to obtain judicial review of the Department's final decisions in accordance with the Massachusetts Administrative Procedures Act, M.G.L. c. 30A, § 14.

them that they would have to evaluate the environmental impacts of the proposed seawalls in accordance with the Massachusetts Environmental Policy Act, M.G.L. c. 30, §§ 62-62H ("MEPA"), before the Department could make a final decision on their project. (Pet. App. 55-59, 72-76).[6]

Despite this notice, the Nelsons appealed the Department's permit, without taking any action to move the administrative process to a conclusion. From 1990 to 1992, the Nelsons neither commenced the environmental review process required by MEPA nor challenged the requirement that they prepare an environmental impact report. (Pet. App. 21, 60). Faced with this inaction, the Department could not issue a final decision permitting their project. 301 C.M.R. 11.01(4); 310 C.M.R. 10.

Rather than pursue their administrative remedies, the Nelsons commenced this action in 1990 to challenge the Department's permit denials.[7] (Pet. App. 139-146). As

---

[6] MEPA, M.G.L. c. 30, §§ 62-62H, mandates the preparation of an environmental impact report ("EIR") evaluating the environmental impacts of alternative flood control measures before the Department allows certain coastal engineering structures. This report is intended to inform the Department of the environmental impacts of the proposed structure before it issues a final permit decision. 301 C.M.R. 11.01(4).

[7] At the time they commenced this action, the Nelsons had not even applied for a variance. (Resp. App. 79). The Nelsons did not apply for variances until September, 1993, after they were urged to do so by the Massachusetts Appeals Court. (Resp. App. 80). On October 26, 1993, the Department issued initial decisions denying these variance applications. (Pet. App. 158-161). The Nelsons' administrative appeal is pending.

grounds for this challenge, the Nelsons claimed that the application of the Wetlands Regulations to their properties amounted to a taking. The Nelsons also mounted a facial challenge on substantive due process and equal protection grounds to the provisions of the regulations which restrict the construction of coastal engineering structures on coastal dunes and coastal banks.[8] *See* 310 C.M.R. 10.28 and 10.30.

Because the Nelsons' administrative appeal was pending, the Superior Court dismissed the takings claim as premature. (Pet. App. 20-24). The Superior Court also issued a judgment upholding the Wetlands Regulations. (Pet. App. 9 -19)

On appeal, the Massachusetts Appeals Court affirmed, noting that the use to which the Nelsons "put their properties has not at all been affected by the denial of their requests. Both homes remain intact and it is far from a foregone conclusion that the Department will ultimately prohibit protective measures or that the homes will be claimed by the sea." (Pet. App. 2). The Massachusetts Supreme Judicial Court subsequently denied the Nelsons' request for further appellate review. (Pet. App. 8).

Two years after the commencement of this action, in 1992, the Nelsons began to experience some coastal flooding. Accordingly, they applied for and obtained an emergency certification permitting the installation of a temporary sandbag

---

[8] Throughout this action, the Nelsons attempted to bypass the administrative process by seeking preliminary injunctions restraining the Department from enforcing the Wetlands Protection Act, M.G.L. c. 140, § 40, and the Wetland Regulations 310 C.M.R. 10.20. (Resp. App. 4-9).

revetment.[9] *See* 310 C.M.R. 10.06. (Resp. App. 44). Because the Nelsons had not begun to evaluate the environmental impacts of their seawalls, the Department conditioned this emergency certification on the requirement that they participate in the MEPA environmental review process. (Resp. App. 44-45). It was only after this emergency certification that the Nelsons began to conduct the necessary environmental review. The Department subsequently established a schedule for the conduct of the adjudicatory hearing in conjunction with the completion of the MEPA environmental review process. (Resp. App. 43).

In June 1994, the Nelsons completed the environmental review process. (Pet. App. 80-82). The environmental impact report (the "EIR") produced in the course of this review noted that the Nelsons' properties had benefitted from the accretion of large amounts of sand and were not in immediate danger. At the same time, the EIR predicted that in approximately two to ten years, the Nelsons properties would again become vulnerable to coastal erosion. (Resp. App. 66). To alleviate the affects of this erosion, the EIR recommended the construction of a continuous wall that would extend from the properties owned by Mr. and Mrs. Nelson to the property owned by Mr. and Mrs. Hicks. (Resp. App. 76).

---

[9] On May 7, 1992 Mr. and Mrs. Nelson applied for an emergency authorization to install a temporary sandbag revetment, and on May 11, 1992, the Department issued that authorization. (Resp. App. 44). This sandbag has fully protected the properties owned by Mr. and Mrs Nelson. (Pet. App. 5). To date, Mr. and Mrs. Hicks have not applied for an emergency certification. (Pet. App. 5).

In accordance with the Department's schedule, the administrative process has proceeded in conjunction with the environmental review process. On March 25, 1994, the Department issued a decision bifurcating the hearing into a permitting phase and a variance phase.[10] (Pet. App. 162-163). The first phase of this hearing took place May 1994. (Resp. App. 18). At that hearing, representatives of the Department supported the wall recommended in the EIR. (Resp. App. 76). A decision on the Nelsons' permit application is pending. In accordance with its bifurcation order, the Department intends to hold the second phase in the near future. (Pet. App. 162-163).

Summary of the Argument

The Massachusetts courts correctly dismissed the Nelsons' regulatory taking claim as premature. Without a final decision on their request for permission to build seawalls, the Nelsons are left to argue that the Commonwealth took their properties, merely by requiring them to obtain a permit. It is well settled that such a permit requirement is not a taking. *United States v. Riverside Bayview Homes*, 474 U.S. 121, 127 (1985).

Moreover, it is entirely possible that the Nelsons will be allowed to protect their properties, once the administrative process is complete. Through this process, the Nelsons applied for and obtained permission to build a temporary sandbag revetment, which has in the interim completely protected their properties. Indeed, at the adjudicatory hearing, the Department supported the construction of a continuous seawall that would

---

[10] If the Nelsons obtain permits at the end of the first phase, the variance phase may not be necessary.

extend from the properties owned by Mr. and Mrs. Nelson to the property owned by Mr. and Mrs. Hicks. Accordingly, the Nelsons have not shown and cannot show that they should be excused from the final decision requirement on the ground that it would be futile for them to complete the administrative process.

Further there is no merit in the Nelsons' claim that the Commonwealth has taken their properties by unreasonably delaying the administrative process. To the contrary, the Department has attempted to expedite this process, although the Nelsons have failed to pursue their administrative remedies diligently and have devoted considerable effort to avoiding these remedies. To expedite the administrative process, the Department has developed and adhered to a schedule for the adjudicatory hearing in conjunction with the environmental review process for the proposed seawalls, a schedule that provides for the Department to issue a final decision on the Nelsons' permit application by October 15, 1994. In light of this schedule, the Nelsons should certainly not be allowed to establish a taking, merely because of the length of the permitting process.

To avoid the final decision requirement, the Nelsons make an argument which they failed to raise in the state court proceedings. More specifically, the Nelsons claim that they suffered a "physical invasion" of their properties, because there was some flooding before they built their temporary sandbag revetment. Courts have long recognized the highly dynamic and fluctuating nature of the coastline. Given the inherent vulnerability of beachfront real estate, the Commonwealth cannot be held liable for a taking just because flooding occurs at some point in the administrative process.

Finally, the Nelsons claim that the Massachusetts courts applied the wrong standard to their taking claim. This claim is wholly without merit, since the Massachusetts courts did not act on their taking claim, but merely dismissed that claim as premature.

Argument

Review on a Writ of Certiorari is discretionary. Such review will be granted only where there are special and important reasons. In the exercise of this discretion, the Court reviews state court opinions interpreting federal law only when there is an important legal question that has not been decided by the Court or when the state court decision conflicts with Supreme Court or circuit court precedent. For the reasons stated below, the petition clearly does not meet these criteria. Accordingly, the petition should be denied.

I. CONSISTENTLY WITH LONG-STANDING PRECEDENT, THE MASSACHUSETTS COURTS CORRECTLY HELD THAT THE NELSONS COULD NOT MAINTAIN THEIR TAKING CLAIM UNTIL THEY OBTAINED A FINAL DECISION ON THEIR PERMIT AND VARIANCE APPLICATIONS.

The Nelsons are attempting to litigate their taking claim before the Department issues a final decision on their permit and variance applications. In this posture, the Nelsons are left to argue that the Commonwealth has "taken" their properties simply by requiring them to obtain a permit. The Massachusetts courts correctly rejected this argument.

It is well established that the state does not take private property merely by requiring the owner to obtain a permit before he devotes his property to a particular use. "After all, the very existence of a permit system implies that permission may be granted leaving the owner free to use his property." *United States v. Riverside Bayview Homes*, 474 U.S. 121, 127 (1985). Indeed, it is only when a regulatory agency issues a final determination denying a permit that a landowner may attempt to bring a regulatory taking claim based on the imposition of a permit requirement. *Id.*

In *MacDonald, Sommer & Frates v. Yolo County*, 477 U.S. 340, 348, *reh. den.*, 478 U.S. 1035 (1986), the Court explained why a final decision is an essential element of a regulatory taking claim based on the application of a permit requirement:

> It follows from the nature of a regulatory takings claim that an essential prerequisite to its assertion is a final and authoritative determination. A court cannot determine whether a regulation goes too far, unless it knows how far the regulation goes.

See also Williamson County Regional Planning Comm'n v. Hamilton Bank of Johnson City, 473 U.S. 172, 199-200 (1985); *Hodel v. Virginia Surface Mining and Reclamation Ass'n*, 452 U.S. 264, 293-297 (1981).[11] Consistent with this

---

[11] *Lucas v. South Carolina Coastal Council*, 112 S.Ct. 2886 (1992) did not eliminate the need to obtain a final decision before bringing a regulatory taking claim. *See Southview Associates Ltd. v. Bongartz*, 980 F.2d 84, 98 (2d Cir. 1992), *cert. denied* 113 S.Ct. 1586 (1993). The Court's recent decision in

precedent, the Massachusetts courts correctly held that the Nelsons could not maintain their taking claims until the Department issues final orders on both their permit and variance applications.

II. CONSISTENTLY WITH WELL-ESTABLISHED PRECEDENT, THE MASSACHUSETTS COURTS CORRECTLY CONCLUDED THAT IT WAS NOT FUTILE FOR THE NELSONS TO PURSUE THEIR ADMINISTRATIVE REMEDIES.

The Nelsons suggest that it would be futile for them to pursue the administrative process through to a final decision. This suggestion is without merit.

Courts have recognized that there is a narrow "futility exception" to the final decision requirement for takings claims. *See e.g. Traweek v. City & County of San Francisco*, 920 F.2d 589, 594 (9th Cir. 1990); *Sequin v. City of Sterling Heights*, 968 F.2d 584, 588 (6th Cir. 1992); *Southview Associates Ltd. v. Bongartz*, 980 F.2d 84, 96 (2d Cir. 1992), *cert. denied*, 113 S. Ct. 1586 (1993). To fall within this exception, a landowner cannot rely on the mere possibility or even the probability that the Department may deny their permit and variance applications. "A sort of inevitability is required; the prospect of refusal must be certain (or nearly so)." *Gilbert v. City of Cambridge*, 932 F.2d 51, 61 (1st Cir. 1991), *cert. denied*, 112 S.Ct. 192 (1991).

Dolan v. City of Tigard, ___ U.S. ___, 1994 Westlaw 876693 (1994) further underscores the need for a final decision.

Moreover, because it may be difficult to determine whether a particular landowner falls within this narrow exception, courts have held that a property owner cannot allege futility until he or she has made at least one meaningful application for administrative relief. To be meaningful, the application must be essentially complete, and should include a request for both a permit and a variance. In addition, the property owner must follow at least one complete application for a permit and a variance through to conclusion. *Id. See Kinzli v. City of Santa Cruz*, 818 F.2d 1449, 1455 (9th Cir. 1987), *cert. denied*, 484 U.S. 1043 (1988).[12]

In this case, the Department has already allowed the Nelsons to protect their properties by granting permission to build temporary sandbag revetments. Moreover, the Department testified at the adjudicatory hearing in favor of the approach identified in the EIR, the construction of a continuous seawall that would protect the portion of the Chatham coastline extending from the properties owned by Mr. and Mrs. Nelson to the parcel owned by Mr. and Mrs. Hicks. (Resp. App. 44). Accordingly, the Nelsons have not shown and cannot show that

---

[12] The circuit court cases cited in the text follow Supreme Court precedent. *See, e.g., Williamson Planning Comm'n v. Hamilton Bank of Johnson City*, 473 U.S. 172 (1985); *MacDonald, Sommer & Frates v. Yolo County*, 477 U.S. 340, 353, n. 9, (1986), *reh. den.*, 478 U.S. 1035 (1986). In *Williamson*, the Court held that a taking claim was not ripe because the developer failed to follow the procedures for obtaining a variance. 473 U.S. at 190. In *Yolo County*, the Court held a taking claim unripe, because only one development plan had been rejected. The Court noted that it was possible that some development would be permitted. 477 U.S. 352, 353, n. 9 (1986).

it is "virtually inevitable" that the Department will issue final orders denying them permission to protect their properties.[13]

Nor can the Nelsons show that it is impossible for them to complete the administrative process and obtain final orders from the Department. To the contrary, the adjudicatory hearing has proceeded substantially as scheduled. On May 25, 1994, the Department concluded the permitting phase of the adjudicatory hearing. The schedule calls for the Department to issue its final permit decision no later than October 15, 1994.[14] The Department has also indicated that it will hold the variance phase in the near future. At this point in the proceedings, it is clear that the Massachusetts courts were

---

[13] Under the Wetlands Regulations, the Department may allow the Nelsons to build seawalls, if it determines that

> (1) the property is a coastal dune that is not significant to any of the interests identified in the Wetlands Protection Act including storm damage prevention and flood control, 310 C.M.R. 10.28; or
>
> (2) although the property is on a significant coastal dune the proposed structure does not have any of the adverse effects identified in the regulations. 310 C.M.R. 10.28(3).

The Department may also allow the Nelsons to build seawalls by granting them a variance from the regulations. *See* 310 C.M.R. 10.36. *See also Wilson v. Commonwealth*, 413 Mass. 352, 357 n.5, 597 N.E.2d 43 (1992).

[14] The Department established a deadline of August 16, 1994 for post-hearing submissions. The schedule calls for the Department to issue its final permit decision within sixty days of the date that the adjudicatory hearing record is closed. (Resp. App. 43).

correct when they concluded that it would not be futile for the Nelsons to pursue the administrative process to a conclusion. Consistent with well-established precedent, the courts properly required the Nelsons to obtain final decisions from the Department before they could litigate their taking claim.

III. SINCE THE ADMINISTRATIVE PROCESS HAS NOT BEEN SHOWN TO BE FUTILE, THE NELSONS CANNOT AVOID THE FINAL DECISION REQUIREMENT.

The Nelsons make two additional arguments to avoid the final decision requirement. The Nelsons claim that the Commonwealth has taken their properties by unreasonably delaying the permitting process. (Pet. App. 9-10). The Nelsons also attempt to recast their regulatory taking claim as a case of physical invasion. (Pet. App. 16). As shown below, neither of these arguments has merit.

A. *The Nelsons Cannot Establish A Taking Solely Because It Takes Time To Complete The Permitting Process.*

This Court has repeatedly stated that absent "extraordinary delay," any fluctuations in value that occur during the process of governmental decision making are "incidents of ownership" rather than a "taking". *Agins v. Tiburon*, 447 U.S. 255, 263, n.9 (1980); *First Evangelical Lutheran Church of Glendale v. County of Los Angeles*, 482 U.S. 304, 320 (1987). *See Williamson County Regional Planning Comm'n v. Hamilton Bank*, 473 U.S. 172 (1985). Recognizing the complexity of

many permitting decisions, courts rarely hold regulatory agencies responsible for creating such an "extraordinary delay" that it results in a taking. *See 1902 Atlantic Ltd v. United States*, 26 Cl. Ct. 575, 582 (1992)(more than four and a half years to obtain a wetlands permit not extraordinary delay); *Dufau v. United States*, 22 Cl. Ct. 156, 163 (1990)(sixteen months to obtain a wetlands permit not extraordinary delay).[15]

In this case, there is certainly no "extraordinary delay." To the contrary, the Department has tried to expedite the administrative process by developing and adhering to a schedule for the adjudicatory hearing. Pending completion of this process, the Department has allowed the Nelsons to protect their properties with sandbag revetments. Moreover, the Nelsons have continued to enjoy the full use of their properties. In light of these facts, the Commonwealth should not be held liable for a taking, merely because of the length of the permitting process.

---

[15] In *Wilson v. Commonwealth*, 413 Mass. 352, 597 N.E.2d 43 (1992), the plaintiffs claimed that the Commonwealth had taken their properties by delaying the wetlands permitting process. The Massachusetts Supreme Judicial Court remanded the case to the Superior Court to assess the validity of that claim, solely because their properties were totally destroyed before the administrative process was complete. But for this destruction, the court would have required the *Wilson* plaintiffs to complete the administrative process and obtain a final decision before bringing a taking claim. *Id.* at 355-358.

B. *The Nelsons Cannot Rely On Coastal Flooding To Establish A Taking By Physical Invasion.*

In a further effort to avoid the final decision requirement, the Nelsons claim that they suffered a "physical invasion," because there was some limited coastal flooding of their properties,[16] before they constructed the temporary sandbag revetment. This Court should not consider this claim, because the Nelsons did not make the "physical invasion" argument in any of the state court proceedings. *See California v. Taylor*, 353 U.S. 553, 556-557, n.2 (1957); *Lawn v. United States*, 355 U.S. 339, 362-363, n. 16 (1968).

However, if it were to consider the physical invasion claim, this Court should conclude that it is entirely without merit. In alleging this "physical invasion," the Nelsons rely on *Pumpelly v. Green Bay Co.*, 80 U.S. (13 Wall.) 166 (1871), and *United States v. Lynah*, 188 U.S. 445 (1903). That reliance is misplaced.

In *Pumpelly* and *Lynah*, the Court held the United States liable for the damages that resulted when the federal government built dams which caused the flooding of private property.

---

[16] Because of changes in the breach and the temporary sandbag revetment, the Nelsons' properties are not currently experiencing flooding. Instead, large amounts of sand have been deposited on their properties, providing natural protection against flooding. The EIR predicted that the Nelsons would not be likely to experience flooding for two to ten years. (Resp. App. 66). In these circumstances, the Nelsons' attempt to craft a "physical invasion" taking claim out of the threat of future flooding is premature.

The instant case is entirely different. By requiring the Nelsons to obtain a permit before they build a seawall, the Commonwealth is simply trying to prevent the construction of any structures that would cause abutting properties to flood. The Commonwealth should certainly not be held responsible for a taking, simply because it is attempting to prevent the very harm that the federal government was held liable for in *Pumpelly* and *Lynah*.

Moreover, courts have long recognized that because of its unique and highly fragile nature, land abutting the coast requires more regulation than inland property. *See, e.g., Commonwealth v. Tewksbury*, 52 Mass. (11 Metc. 55) (1846); *Commonwealth v. Alger*, 61 Mass. 53 (1851). Because the coastline is undergoing constant change as a result of natural forces, courts have held that the owner of littoral land necessarily takes his property with the knowledge that the boundary may change by accretion or reliction. *See, e.g., Michaelson v. Silver Beach Improvement Association, Inc.*, 342 Mass 251, 173 N.E.2d 273 (1961).

Given the highly dynamic nature of the shore, the Commonwealth clearly cannot be held responsible for a taking, just because a coastal property experiences flooding at some point in the administrative process. The taking clause was not intended to make a state the insurer of coastal property, whenever the owner applies for a permit to construct a seawall.

IV. THE MASSACHUSETTS COURTS PROPERLY HANDLED THE NELSONS' FACIAL CHALLENGE TO THE REGULATIONS.

The Nelsons argue that the Massachusetts courts applied the wrong standard to their taking claim. This position is wholly without merit, since the Massachusetts courts dismissed the taking claim as premature and did not address it on the merits. The Massachusetts courts did, however, address the merits of the facial challenge to the Wetlands Regulations on substantive due process and equal protection grounds and correctly upheld the regulations after applying the rational basis test to that claim. *See Pennel v. San Jose*, 485 U.S. 1, 14 (1988); *Nectow v. Cambridge*, 277 U.S. 183, 187-188 (1928); *Gilbert v. City of Cambridge*, 932 F. 2d 51, 65-66 (1st Cir. 1991), *cert. denied*, 113 S.Ct. 1586 (1993); *Southern Pacific v. City of Los Angeles*, 922 F. 2d 498, 507-508 (9th Cir. 1990), *cert. denied*, 112 S.Ct. 382 (1991).[17]

---

[17] The Massachusetts court correctly treated the Nelsons' equal protection and substantive due process claim as a facial challenge. In the absence of a final adjudicatory decision, the Nelsons could not maintain an as-applied challenge on substantive due process and equal protection grounds. *See Williamson County Regional Planning Comm'n v. Hamilton Bank of Johnson City*, 473 U.S. 172, 199-200 (1985); *Pennel v. San Jose*, 485 U.S. 1, 11 n.5 (1988). *See also Gilbert v. City of Cambridge*, 932 F.2d 51, 57 (1st Cir. 1991), *cert. denied* 113 S.Ct. 1586 (1993). Unlike an as-applied challenge, a facial challenge to the regulations does not require a final permit decision. *See Smithfield Concerned Citizens v. Town of Smithfield*, 907 F.2d 239, 241-243 (1st Cir. 1990).

Conclusion

For the reasons set out above, the Court should deny the petition for a Writ of Certiorari.

Respectfully submitted,

SCOTT HARSHBARGER
Attorney General
of Massachusetts

WILLIAM L. PARDEE*
MADELYN MORRIS
Assistant Attorneys General
1 Ashburton Place
Boston, MA 02108
(617) 727-2200
**Counsel of Record*

Appendix

Table of Contents

	Page
Decision on Plaintiff's Motion for Preliminary Orders dated 1/3/90, (Dolan, J.) Barnstable Superior Court C.A. No. 90-1712	App. 1
Decision on Plaintiffs' Petition Pursuant to G.L. c. 231, Sec. 118 dated January 14, 1991, Smith, J., Appeals Court 91J28	App. 4
Judgment dated February 13, 1991, (Abrams, J.) Supreme Judicial Court for Suffolk County No. 91-31	App. 6
Memorandum and Order dated January 17, 1992 Kass, J., Appeals Court 91-J-933	App. 7
Commonwealth's Opposition to Petition for Single Justice Review Pursuant to G.L. c. 231, § 118 and Request for Hearing	App. 10
Department of Environmental Protection's Post Hearing Brief, August 16, 1994	App. 16
Department of Environmental's Decision on Request for Variance October 23, 1993	App. 31

Emergency Certification dated May 11, 1992 App. 46

Superseding Order of Conditions Massachusetts Wetlands Protection Act G.L. c. 131, §40 DENIAL DEP File No. SE 10-804 Applicant Alfred Nelson App. 52

Superseding Order of Conditions Massachusetts Wetlands Protection Act G.L. c. 131, §40 DENIAL DEP File No. SE 10-855 Applicant Lewis Hicks, III App. 55

Pre-Filed Testimony of James Mahala dated 5/12/94 App. 58

Affidavit of Mary F. Connolly dated November 1, 1993 App. 79

1/3/90
Denied
Dolan, J.

COMMONWEALTH OF MASSACHUSETTS
BARNSTABLE, SS SUPERIOR COURT
C.A. NO. 90-1712

ALFRED NELSON, EVELYN NELSON
LEWIS HICKS, III, AND BERNICE HICKS,
Plaintiffs

V.

COMMONWEALTH OF MASSACHUSETTS
Defendant

PLAINTIFFS' MOTION FOR PRELIMINARY ORDERS

Now come the plaintiffs in the above-captioned matter and move pursuant to this Honorable Court's genral superintendency powers and statutes including but not limited to Mass.R.Civ.P. 65(b), G.L. c. 231A sec. 2, and Superior Court Rule 9A that the following be entered as orders:

PRAYER I: Plaintiffs are allowed to construct the following on properties at Chatham Harbor, Chatham, Barnstable County, Massachusetts:

a) Stone seawalls per specifications of defendant for the Chatham Harbor area, with height twenty feet above beach elevation and depth twelve feet below said elevation;

b) Rock windrows with height twelve feet above beach elevation; or

c) Steel bulkheads with height twenty feet above beach elevation and depth twelve feet below said elevation.

PRAYER II: Stone seawalls requested in Prayer I shall remain in place until issues raised in plaintiffs' Complaint are ettled or fully adjudicated. Plaintiffs will post a bond of $20,000.00 with this Court to cover the cost of removal of said seawalls. Said bond shall remain posted until issues raised in plaintiffs' Complaint are settled or fully adjudicated. Count IV of the Complaint in this matter (taking without compensation) is dismissed without prejudice.

As grounds, plaintiffs say that without the relief requested they will suffer the immediate and irreparable loss of their homes.

Further grounds for this Motion are presented in the Complaint filed in this matter, Plaintiffs' Memorandum in Support of Motion for Prelinimary Orders, the Affidavit of Nicholas B. Soutter, Esq. and the Affidavit of Robert E. Weaver.

Request for Hearing of Emergency Motion

Plaintiffs request hearing pursuant to Superior Court Rules 9A(c)(3) and 9A(c)(e)(1).

RESPECTFULLY SUBMITTED,
ALFRED NELSON, EVELYN NELSON, LEWIS HICK, III, AND BERNICE HICKS
By their attorneys,

Nicholas B. Soutter
BBO #473740
Paul S. McGovern
BBO #549167
One Washington Street
Suite 208
Wellesley, MA 02181
(617) 237-6300

COMMONWEALTH OF MASSACHUSETTS
APPEALS COURT
No. 91J28

ALFRED NELSON, EVELYN NELSON
LEWIS HICKS, III, AND BERNICE HICKS,
Plaintiffs

V.

COMMONWEALTH OF MASSACHUSETTS
THE TOWN OF CHATHAM
Defendants

PLAINTIFFS' PETITION PURSUANT TO G.L. c. 231, SEC. 118

1. *Request for Interlocutory Review*

Plaintiffs request seawalls pending determination of the constitutionality of state requlations. (Request denied by Order of January 3, 191, Nelson, et al. v. Commonwealth, Barnstable Superior Court, C.A. No. 90-1712).

2. *Statement of Issues Presented*

Plaintiffs' properties will be destroyed without seawalls (see Trial Court findings, Attachment A).

State regulations prohibiting seawalls (310 CMR relation to legislative purpose (Wetlands Protection Act, G.L. c. 130, sec. 40).

3. *Relief Requested*

See prayers of Plaintiffs' Motion for Preliminary Orders requesting seawalls (Attachament B).

4. *Copy of Trial Court Findings and Order*

See Attachments A and B for Trial Coury findings and Order in this matter.

For further grounds see Plaintiffs' Brief in Support of Petition Pursuant to G.L. c. 231, sec. 118.

Appeals Court
SUBMITTED,
The within requested relief is denied.
Smith, J.

January 14, 1991
Attest: Nancy Turck Foley
Clerk

RESPECTFULLY

ALFRED NELSON, EVELYN NELSON, LEWIS HICK, III, AND BERNICE HICKS
By their attorneys,

Nicholas B. Soutter
BBO #473740
Paul S. McGovern
BBO #549167

COMMONWEALTH OF MASSACHUSETTS

SUFFOLK, SS. SUPREME JUDICIAL COURT
FOR SUFFOLK COUNTY
NO. 91-31

ALFRED NELSON,[1] et al.

v.

COMMONWEALTH OF MASSACHUSETTS[2]

JUDGMENT

After hearing, the request for relief pursuant to G. L. c. 211, § 3 is denied.

By the Court (Abrams, J.)
/s/
Assistant Clerk of Court

ENTERED: February 13, 1991

1/ Evelyn Nelson, Lewis Hick and Bernice Hicks
2/ Commonwealth of Massachusetts and the Town of Chatham

COMMONWEALTH OF MASSACHUSETTS
APPEALS COURT

91-J-933

ALFRED NELSON, EVELYN NELSON,
LEWIS HICKS, III & BERNICE HICKS

vs.

COMMONWEALTH OF MASSACHUSETTS
and the
TOWN OF CHATHAM.

MEMORANDUM AND ORDER

Although not immune to review, the regulations of administrative agencies and the decisions of those agencies applying their regulation, carry great weight. In this case the Department of Environmental Protection has developed regulations concerning coastal dunes. They are based on assumptions founded in hydrodynamics and geology. The Superior Court judge who refused to enjoin application of the regulations and, in consequence, refused to authorize the building of stone revetments by the petitioners, correctly prognosticated slim chance of success on the merits.

The adverse consequences to the petitioners, that the sea may wash their houses away, are sufficiently grave, that I invited the governments to furnish me with material touching on what harm might accrue to the general public interest should a sea wall be erected and left in place pending adjudication of

the merits. That is, might steps taken so that adjudication of the merits does not become academic?

I have been furnished with affidavits from government engineers which say that the construction of revetments by the Nelsons and the hicks would tend to erode the beaches on either end of those revetments. I read the government affidavits as predicting that protection of the Nelson and Hicks properties will simply place at risk other properties. Natural dune movement, the government affidavits say, is the best hope for coastal preservation. Indeed, the government affidavits say, the revetments are not even likely to save the Nelson and Hicks houses. Of course, the petitioners do not agree with this scientific view and put forward scientific opinions of their own. In this situation of conflict, and taking into account the considerable unlikelihood that the plaintiffs would be able to establish that the underlying regulation is unlawful, let alone unconstitutional, I think the Superior Court judge correctly declined to make an order which would permit the petitioners to construct seawalls to protect their oceanfront houses. On the question of whether injunctive relief ought to be granted, government steps to protect the general public interest receive deference. See *Commonwealth* v. *Mass CRINC*, 392 Mass. 79, 88-89 (1984).

I deny the petition for relief under G.L. c. 231, § 118, first par.

I add as a postscript that the interests of the plaintiffs in this action may be better served by reaching a commonly acceptable

solution (the government, for example, has recommended dune nourishment), rather than engaging in protracted combat with local and State authorities,

By the court (Kass, J.),

Ashley Ahearn
Assistant Clerk

Entered: January 17, 1992.

November 1, 1993

BY HAND

Clerk of Court
Appeals Court
New Court House, 15th Floor
Pemberton Square
Boston, MA 02108

RE: *Nelson, et al. v. Commonwealth et al., No. 92-P-827*

Dear Clerk of Court:

I have enclosed the following for filing in the above-referenced case:

1. the Commonwealth's Opposition to Plaintiffs' Petition for single-Justice Review Pursuant to G.L. c. 231, § 118 and Request for Hearing;
2. exhibits 1-5 to the Commonwealth's Opposition; and
3. certificate of service.

Thank you for your assistance with this matter.

Very truly yours,

Mary B. Griffin
Assistant Attorney General
Environmental Protection Division
(617) 727-2200 ext. 2553

COMMONWEALTH OF MASSACHUSETTS
APPEALS COURT
NO. 92-P-827

ALFRED NELSON, ET AL.,
Plaintiffs - Appellants,

v.

COMMONWEALTH OF MASSACHUSETTS, ET AL.,
Defendants - Appellees

COMMONWEALTH'S OPPOSITION TO PETITION FOR SINGLE JUSTICE REVIEW PURSUANT TO G.L. c. 231, § 118

The Commonwealth of Massachusetts (the "Commonwealth") opposes the Plaintiffs' Petition for Single Justice Review Pursuant to G.L. c. 231, § 118 and Request for a Hearing (the "Petition"). The Petition is moot because the Department of Environmental Protection ("DEP") has already issued its decisions on the Plaintiffs' request for variances.

The Court should deny the Petition for Single Justice review because it is moot. The Plaintiffs argue that the Court should allow the Petition because DEP has not responded to their request for variances. On October 26, 1993, however, DEP issued its Decisions on Request for Variances with respect to both the Nelson and the Hicks properties. *See* Decisions on Request for Variances, attached as *Exhibit 1*.

The Court should not grant Single Justice review when DEP has already issued its decisions.[1] *See Int'l Marathons, Inc. v. Attorney General, et al.*, 392 Mass. 376, 380 (a984) (mootness doctrine applies to judicial review of administrative decisions as well as appellate review of lower court decisions); *Degrace, et al. v. Conservation Commission of Harwich*, 31 Mass. App. Ct. 132, 136 (1991) (dismissal of appeal of Conservation Commission's wetlands permit decision on mootness grounds).

In addition, the Court should not grant Single Justice review when DEP promptly responded to Plaintiffs' request for variances. Contrary to the assertions in the Petition, the Court did not order the Commonwealth "to decide within thirty days whether the plaintiffs can build seawalls." Petition, p. 1. Instead, the Court urged the Commonwealth to respond promptly if the Plaintiffs requested a variance. At oral argument, counsel for the Commonwealth estimated that the Commonwealth could respond in about thirty days. Affidavit of Mary Connolly, attached as *Exhibit 2*. After the oral argument, the Plaintiffs filed the request for variances on or about September 20, 1993. Shortly thereafter, on October 26,

---

[1] Even if the Court were to allow the Petition for review, it would be improper for the Single Justice to grant the relief that the Plaintiffs request. In the Petition, the Plaintiffs "request that this Court issue an order granting plaintiffs permission to construct seawalls as shown in the engineering plan" submitted to DEP. The Court, like DEP, should not issue an order allowing the construction of engineering structures on Plaintiffs' properties without access to the information in the Environmental Impact required under the Massachusetts Environmental Policy Act, G.L. 30, §§ 61-62H.

1993, DEP issued its Decisions on Request for Variances. Decisions on Request for Variances, *Exhibit 1*.

Further, DEP issued its decisions in accordance with the Wetlands Protection Regulations.[2] DEP carefully evaluated the Plaintiffs' request, and wrote detailed decisions in response to the request. DEP denied the request on the grounds that the Plaintiffs failed to make the showing required under 310 C.M.R. 10.36. In its variance decisions, DEP informed the Plaintiffs of their right to an administrative appeal. In addition, DEP set out an expedited schedule for an adjudicatory hearing on Plaintiffs' appeal of the denial of Superseding Orders of Conditions. *See* Decisions on Request for Variances, *Exhibit 1*. After receiving DEP's decision, the Plaintiffs filed an Appeal of Wetland Variance Denial with DEP.[3]

---

[2] The Wetlands Protection Regulations do not require DEP to issue a decision on a request for a variance within a certain number of days. Instead, 310 C.M.R. 10.36 provides that "[a]fter reviewing the information submitted with the request for a variance and any other information submitted by any party within twenty-one (21) days of the request, the Commissioner shall issue a decision as to whether to grant the request." The regulation, therefore, requires other parties to submit information to the Commissioner within twenty-one days of the request for a variance. The regulation further implies that the Commissioner must wait twenty-one days to receive this additional information before issuing a decision, but does not establish a deadline for the decision.

[3] Appeal of Wetland Variance Denial, attached as *Exhibit 3*. The Wetlands Protection Regulations at 310 C.M.R. 10.36 allow certain persons, within ten days of issuance of the Commissioner of DEP's decision on a variance request, to request an adjudicatory hearing. According to DEP's Decisions on Request

In addition, the Plaintiffs' seek Single Justice review pursuant G.L. c. 231, § 118 although they are not aggrieved by an interlocutory order specified in that statute. G.L. c. 231, § 118 establishes a procedure for a "party aggrieved by an interlocutory order of a *trial court* in the superior court department, the housing court department, the land court department or the probate and family court department: to request relief from that order (emphasis added).[4] In this case, the Plaintiffs do not even allege in the Petition that they are aggrieved by an interlocutory order of a trial court. Furthermore, this Court never issued an order at the September 20, 1993 hearing.[5] The Court, therefore, should not grant the Petition for G.L. c. 231, § 118 review.

Finally, the Court should not grant single Justice review when DEP is actively working to resolve this matter as quickly

---

for Variances, the administrative law judge may hold the variance appeal in conjunction with the schedule for the adjudicatory hearing on the Plaintiffs' appeal of denial of Superseding Orders of Conditions. *See* Decisions on Request for Variances, *Exhibit 1*.

[4] G.L. c. 231, § 118 only creates a narrow exception to the general policy that interlocutory rulings should not be presented piecemeal to the Appeals Court for review. *Packaging Industries Group, Inc., et al. v. Cheney*, 380 Mass. 609, 612 (1980); *CUNA Mutual Insurance Society v. Attorney General*, 380 Mass. 539, 541 (1980) (general policy disfavoring appeals from interlocutory orders).

[5] *See* Affidavit of Mary Connolly, *Exhibit 2*; *see also* copy of Appeals Court Docket, Case 92-P-000827, attached as *Exhibit 4* (Appeals Court docket does not indicate that the Court issued any order at or subsequent to the oral argument).

as possible in accordance with established administrative procedures. DEP set forth an expedited schedule for the adjudicatory hearing in its Decision on Request for Variances. In addition, DEP has taken a number of actions to facilitate prompt resolution of this matter, including 1) site visits to assess and monitor current conditions, 2) emergency certification of a temporary structure on the Nelson property 3) meeting with the consultants preparing the draft Environmental Impact Report to expedite its completion. *See* Affidavit of James Mahala, attached as *Exhibit 5*.

Respectfully submitted,

SCOTT HARSHBARGER
ATTORNEY GENERAL

Madelyn Morris, BBO #355870
Mary Griffin, BBO #555986
Assistant Attorneys General
Environmental Protection Division
One Ashburton Place, 19th Floor
Boston, Massachusetts 02108

DATE: November 1, 1993

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of	)	Docket No. 92-140
	)	File No. SE 10-987
ALFRED B. NELSON	)	Docket No. 93-090
	)	(Variance Denial)
	)	CHATHAM
In the Matter of	)	Docket No. 92-152
	)	File No. SE 10-1027
LEWIS W. HICKS	)	Docket No. 93-089
	)	(Variance Denial)
	)	CHATHAM

DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POST HEARING BRIEF

I. FACTUAL AND PROCEDURAL HISTORY

Chatham, occupying Cape Cod's extreme southeastern corner, lies at the end of two littoral drift systems: one directed easterly along the Cape's south coast and one directed southerly along the southern portion of the east coast. (JM Ex. 13, fig. 1). On January 2, 1987, during a northeasterly storm, Nauset Beach was breached at a point almost directly east of the lighthouse at Chatham resulting in increases in wave energy and tidal range which produced increased coastal erosion. (JM, Pars. 20-22).

The breach has widened in ensuing years, and has become known as New In et.
The section of Nauset Beach located to the north of New Inlet iscalled North Beach, and the section located to the south of New Inlet is called South Beach.

The Little Beach area is that part of the Chatham mainland that is landward of South Beach. (JO Par. 8). Alfred B. Nelson and Lewis B. Hicks, ("the Applicants"), each own shorefront property in the Little Beach area. (JO Par. 8). The Nelson property is located immediately south of Bearse's Way. The Hicks property is located about one thousand feet south of the Nelson property, at the eastern end of Dune Drive.

On December 23, 1991 Nelson filed a Notice of Intent with the Chatham Conservation Commission proposing construction of a two sided rock revetment, 320 feet long, with a maximum elevation of 16 feet above mean sea level. It was proposed to be located along the landward edge of a primary dune. (JM Pars. 9, 35). On January 30, 1992, the Conservation Commission issued an Order of Conditions denying Nelson permission to construct the revetment. (JM Ex. 3).

On May 11, 1992, the Department issued an Emergency Certification permitting Nelson to build a sand bag, (Dura Bag) wall to abate the threat of erosion. (JM Par. 45 (b)). It was built, and consists of approximately fifty bags of sand weighing 4 tons each, a total of 200 tons of sand. (RW p. 5 par. 23).

On October 20, 1992 the Department issued a Superseding Order of Conditions denying Nelson permission to build the revetment. (JM par. 14, Ex. 5). The denial was based upon the revetment's anticipated adverse effects on the coastal beach and primary dune. On October 28, 1992, Nelson appealed.

Lewis Hicks filed a Notice of Intent with the Chatham Conservation Commission on May 15, 1992 also seeking permission to construct a revetment, similar in design to the two sided Nelson proposal, and also proposed to be located on the landward side of a primary coastal dune. (JM pars. 11, 36). On July 2, 1992, the Conservation Commission denied Hicks permission to build. (JM par 11.; Ex. 4). The Department issued a Superseding Order of Conditions on November 9, 1992 again denying the project, and Hicks also appealed. (JM par. 14; Exs. 6, 7, 8).

Aubrey Consulting, Inc., ("ACI") was retained by the Town of Chatham to prepare a coastal management plan for the area affected by the breach. A draft Environmental Impact Report, ("DEIR") for the area from Bearse's Way south to Morris Island, the so-called Phase II area, including Little Beach, was received by the Department on December 7, 1993. (JM Ex. 11; Ex. 23B). It found that the Little Beach area, is protected from all sides by either a barrier beach or shoaled regions that inhibit the propagation of wave energy and ...is dominated by shallow water fetch-limited waves..... (p.27). It also concluded that the area is....protected by South Beach and is actively accreting" (Ex. 23B p.41).

Following the statutorily required public notice and comment period, a Final Environmental Impact Report was issued in May 1994. Substantially the same as the DEIR, it concluded that South Beach would begin to break up within 10 to 20 years, and that Little Beach would then be subject to high rates of erosion. (Ex. 23A p. 9). It recommended temporary groins, beach nourishment and arevetment . (Ex 23A pps. ix-xii).

II. FACTS

The Department submitted testimony by James Mahala, ("Mahala"), an Environmental Analyst with the Department, and by James O'Connell, ("O'Connell"), Senior Coastal Geologist with the Massachusetts Coastal Zone Management Office, ("MCZM").

Mahala holds a Masters degree in Coastal Geology and has been employed as an Environmental Analyst with the Department since 1986. He has conducted over 300 on-site inspections, (JM pars.1-7), and is intimately familiar with the Chatham shoreline, having conducted approximately 25 site visits there since the 1987 breach. (JM par. 8). He made numerous on-site inspections of the Nelson property, as early as February 1, 1988 and as recently as April 26, 1994. (JM pars. 8, 13).

O'Connell holds a Masters degree in Physical Coastal Geography, (JO pars. 1-4), has been employed by the MCZM since 1985, and has held the position of Senior Coastal Geologist since 1989. (JO par. 1). He is familiar with the Little Beach area, having visited there on numerous occasions since January 1987, most recently on October 21, 1993 (JO pars. 6, 7).

Coastal dunes aid in storm damage prevention and flood control by supplying sand to coastal beaches, thereby furthering the dissipation of wave energy. Coastal dunes protect inland coastal areas from storm damage and flooding by storm waves and storm elevated sea levels because such dunes are higher than the coastal beaches which they border. In order to protect thisfunction, coastal dune volume must be maintained while allowing the coastal dune shape to conform to natural wind and water flow patterns. On retreating shorelines, such as the Chatham coast, the ability of coastal dunes bordering the

coastal beach to move landward at the rate of shoreline retreat allows these dunes to maintain their form and volume, which in turn promotes their function of protecting against storm damage or flooding.(JM, 33).

The Nelson revetment is proposed to be built along the landward edge of a primary dune, (JM par. 35, JO par. 14, 18). The Hicks revetment is also proposed along the landward edge of a primary dune, (JM par 36; JO, par. 15). Although landform alterations have occurred on the Hicks property, the locus of the proposed construction is elevated, and performs the functions of flood prevention and storm damage control. (JO pars. 16, 17, 19). Additionally, the United States Geologic Service has identified both the Nelson and Hicks properties as containing beach and dune deposits, so it is likely that any artificial fill on the Hicks property overlays a coastal dune deposit, (JM par. 19).

Revetments have been documented in both laboratory and field studies to cause increased erosion on the fronting beach and adjacent properties by eliminating the source material for beaches and dunes due to retention of sand behind the structures which would otherwise be available in the absence of the structure, (JO par. 20). The phenomenon referred to as "end scour" or "flanking", is defined as the excess erosion which the presence of a structure causes to occur beyond the naturally occurring erosion, and is awell documented process, (JM par. 42; Tr. II-167, lines 9-19).

The revetments proposed across the Nelson and Hicks properties will cause severe end scour on the adjacent properties. This will result in significant erosion of beach and dune areas, and increased storm damage and flooding potential to these properties. These effects will be particularly severe on

the immediately adjacent downdrift properties, (JO par. 22; Tr. II-167 l. 7). In addition, the anticipated end scour of the proposed individual revetments may flank the structures, thereby causing their failure. This is of particular concern for a revetment on a coastal dune due to the unconsolidated, highly porous and dynamic nature of the dune material. (JO par. 25).

The revetments will have adverse effects on the coastal dunes by affecting the ability of waves to remove sand from the dune, by disturbing the vegetative cover, thereby destabilizing the dune, by modifying the dune form, by interfering with the landward and lateral movement of the dune, and by removing sand from the dune artificially. (JO par. 24).

Coastal beaches serve the purpose of storm damage prevention and flood control by dissipating wave energy and by providing sediment to supply other coastal wetland resource areas including coastal dunes, nearshore areas of land under the ocean and other coastal beaches. (JM par. 32).

The Nelson house is fronted by a primary coastal dune. Seaward of the dune is an area of coastal beach approximately 300 feet in width. (JM, Par. 18). The Nelson revetment would change the beachfrom a dissipative one to a reflective one leading to increased beach scour. Incoming waves and waves reflected from the revetment would apply their energies to the beach, accelerating the transport of sediment in front and downdrift of the revetment. (JM Par. 41). This would lead to the narrowing and the lowering of the coastal beach. (JM par. 44 (a)). The revetment would also increase erosion of the downdrift beaches through reflection of wave energy, thereby causing end scour. (JM par. 44(b)).

III. CONCLUSIONS OF LAW

A. The Nelson and Hicks projects are both located within primary coastal dunes and, therefore are *per se* significant to the interests of flood control and storm damage prevention. (310 CMR 10.28 (1)).

B. The Nelson and Hicks projects will have adverse effects on the dunes, by:

1. affecting the ability of waves to remove sand from the dunes, (310 CMR 10.28 (3) (a);
2. disturbing the vegetative cover so as to destabilize the dunes, (310 CMR 10.28 (3)(b);
3. causing modification of the form of the dunes, therebyincreasing the potential for storm and flood damage, (310 CMR 10.28 (3)(c));
4. interfering with the lateral and landward movement of the dunes, (310 CMR 10.28 (3) (d)); and
5. causing removal of sand from the dunes artificially, (310 CMR 10.28 (3) (e)).

C. The Nelson project is located within the buffer zone to a coastal beach, (310 CMR 10.27 (1));

D. The Nelson project will have an adverse effect on that coastal beach:

1. by increasing erosion, (310 CMR 10.27 (3);
2. by changing its form, (310 CMR 10.27 (3); and
3. by decreasing its volume, (310 CMR 10.27 (3).

E. The Nelson project will have an adverse effect on downdrift coastal beaches:

1. by increasing erosion, (310 CMR 10.27 (3);
2. by changing its form, (310 CMR 10.27 (3); and
3. by decreasing its volume, (310 CMR 10.27 (3).

IV. ARGUMENT

A. Location of Project Proposals

The Applicants have not challenged the Department's determination that both revetments are proposed to be built within primary coastal dunes, nor its determination that the Nelson project is within the buffer zone to a coastal beach.

B. Significance

As they pertain to the primary dunes, the Applicants' significance arguments fail because such dunes are per se significant to storm damage prevention and flood control. 310 CMR 10.28 (1).

The Applicants have not made a clear showing that the coastal beach in front of the Nelson dune does not play a role in stormdamage prevention or flood control. (Tr. II-105 l. 21). The Applicants admit that South Beach currently provides them with protection. (OM/WB p. 3 (par (c)). Applicants argue that the volume of sand on their property is insignificant in relation to the volume of sediment trapped by revetments along the mainland to the north of them, but they admit that the primary source of sediment for their properties is the outer barrier beach and not the mainland. (Tr. II-128 l.17; Tr. p. 124 l.14).

C. Effects on Coastal Dunes and Beaches

Applicants argue that the negative effects of revetments are limited or negligible, and any negative effects that may be caused by revetments are immaterial, because all sand is eventually lost to deep water, (OM/WB p. 17 par. d).

On cross examination, Ole Madsen, ("Madsen"), the Applicants' expert on waves, admitted that all sand is not lost to deep water, and that he had in fact filed an affidavit in a court action filed on behalf of the Applicants against the Commonwealth relating to the same properties, in which he stated that two-thirds of the sand eroded from a beach will

return to the beach. (Tr. p. 175 l.20 to p. 177 l.4). Walter Bohlen, ("Bohlen"), the Applicants' expert on sediment transport, also admitted that some of the sand currently in front of the Nelson and Hicks properties will move landward and some of it will move to the southwest. (Tr. II-98 l.3 to II-99 l.4).

On cross examination Madsen admitted that wave energy was reflected off the face of revetments, (Tr. p. 167 l. 3) and that he did not know whether such reflection affected the fronting beach. (Tr. p. 171 l. 12). He also admitted that Robert Dean of the University of Florida, Gary Griggs of the University of California, and James Tait of Oregon State University had done studies documenting that revetments cause end scour. (Tr II-55 l. 20 to II- 56 l. 17). Bohlen also acknowledged that revetments affect the extent of erosion in unrevetted areas. (Tr. II-120, l. 6). By contrast, both Mahala and O'Connell have observed end scour. (Tr. II-200 l. 19; Tr. III-40 l. 7).

The Applicants' witnesses conclude that a single revetment is preferable to isolated revetments, (Trs. p. 163 l.4; II-118 l. 10) The conclusion is inescapable that the Applicants seek to minimize the effects of revetments on neighboring properties because the properties so affected are their neighbors' and not their own.

The Applicants argue that individual revetments are necessary to protect them from an imminent threat of serious flooding and the potential loss of their houses. (RW pars. 21, 30, 31). Applicants' witnesses agreed with the Department however, that the proposed revetments will not alleviate the Applicants' flooding problems. (Trs. p. 117 l. 2; II-34 l. 10, l. 17, l. 22 to 2-36 and l. 24).

The cornerstone of the Applicants' argument regarding the threat of erosion is the testimony of Robert Weaver. Weaver testified that the beach in front of the Applicants' properties will disappear sometime between six and twenty-five months. (RW pars. 45 through 48). Weaver lacks the expertise based upon either his education or experience to make predictions about future ratesof erosion in the Little Beach area. He also failed to make an adequate factual inquiry to support his predictions.

Weaver holds a high school diploma, took three college level mathematics courses, and attended 40 hours of continuing education courses with the Massachusetts Association of Land Surveyors, (Tr. p. 48 l. 16 through p.49 l. 10). His relevant work experience consists of supervision of the construction of revetments from 1974 to 1979, and employment from 1986 through 1991 for Engineering Information Technology, (EIT) where he acquired permits for the construction of revetments and subsurface sewage disposal systems.

Weaver was not involved in preparing the plans for the proposed revetments which are the subjects of the adjudicatory appeal. (Tr. p. 123, l.1). He permanently relocated to North Carolina in 1991, and since leaving Massachusetts, had been to the Applicants properties on three occasions.

In order to make an informed prediction of future rates of erosion, sound geological practice requires the review of historical literature regarding shoreline changes of the outer Cape, as well as a review of aerial photographs, and all pertinent scientific and government reports. (Tr. II-66 l. 1, to 2-69 l. 1). Weaver's testimony fails to indicate whether he took any of these steps. Much of the data he relied upon came from a 1968 Corps of Engineers report, (Tr. 91, l. 17), despite the

fact that the DEIR discussed several reports and studies of the area prepared after the 1987 breach. (Exs., 23A, 23 B).

In support of his predictions, Weaver relies heavily on ratesof erosion which occurred at the subject properties between 1989 and 1991. Weaver admitted that this period included at least two severe storms, Hurricane Bob and the October 1991 Halloween or "no- name" nor'easter, (Tr. p. 68 l. 13), and that the latter storm in particular caused extensive damage and erosion to the Outer Cape. (Tr. p. 69, l. 5). He also admitted that during the period from 1991 to the present, the beach has accreted by approximately 300 feet. (Tr. p. 70 l. 22). Bohlen also admits that the beach has grown. (II-117 l.2; see also JM pars. 23, 24). Weaver nevertheless maintains that the two year period from 1989 to 1991 is a representative period which can form the basis for predicting future rates of erosion. (Tr. p.73 l. 2).

Weaver's testimony is also based upon erroneous factual assumptions, the most glaring of which is his assertion that the Applicants are vulnerable to 18 foot waves, (RW par. 4). Each of the Applicants' witnesses admit, however that it would be impossible for an 18 foot wave to propagate across the swash platform and strike the Applicants' properties. (Tr. p. 191 l. 4 to 195 l. 1; p. 96 ls. 20-24; Tr. II-22, l. 15; II-103, l. 5; Ex. 22). The average shallow-water wave height is approximately 1.6 ft. (Ex. 23B, p. 26, sec. 4.1.2).

The arguments advanced by Madsen and Bohlen rely heavily upon the observations and conclusions of Weaver and should therefore be given little weight. (Tr. Vol II, pps. 26, l. 23; 28 l., 15; 39, l. 5; 108, l. 10; and 117, l. 2). Madsen had last been to the site in August 1992, (Tr. p. 165 l.24), and had not reviewed the EIR (Tr.p. 161 l. 18).

ACI used an historical shoreline analysis to formulate a quantitative predictive model of the future evolution of New Inlet. The DEIR included an extensive literature review. (Ex. 23B, pps. 8- 10). Results of the US Army Corps Wave Information Phase III, (Jensen, 1983), were used to determine offshore wave conditions. A study of waves and sediment transport performed by Gallagher in 1988 at Woods Hole Oceanographic Institute under the advisement of Dr. Aubrey was also considered. The 1992 FEMA study of Chatham was used to determine flood elevations. Wetland areas were studied by reviewing Department of Environmental Management Orthophoto Maps, vertical aerial photos and by site visits. (Ex. 23B).

The situation in Little Beach is unique and complex. (JO par. 11). The Department agrees with the ACI conclusion that the spit or tombolo currently protecting the Nelson and Hicks properties will begin to break up and migrate at some time in the future between two and ten years from now. (Ex 23A; Tr. p. 2-186, l. 12). The threat to the Applicants from erosion will be temporary. (JM 51).

As a result of littoral drift, the focus of coastal erosion will shift south of the Applicants' properties, and as North Beach migrates southward over time, their properties will again be protected by a barrier beach. At that time the Little Beach area will no longer be subject to direct wave attack from the Atlantic Ocean. (JM par. 51). Additionally, if the channel meanders close to the dunes in the Little Beach area, the natural function of the dunes eroding during storms and providing nearshore sand bars, andthen migrating shoreward allowing reformation of the dunes during post-storm conditions would be compromised, i.e. the sand would be swiftly carried

downdrift in the channel currents and the sand would not be available to migrate landward and reform the dunes, as typically occurs. (JO par.12).

The DEIR recommends that a continuous revetment be constructed as far landward as possible, extending from the Nelson property to the Hicks property. Constructing the revetment as far landward as possible will maximize the natural protective attributes of the beach and dune system. A continuous revetment will prevent the end scour and flanking problems associated with separate revetments. Separate revetments would cause severe impacts on adjacent properties, and gaps would compromise the integrity of the structures.

The recommended plan also proposes that a series of temporary groins, filled with sediment to entrapment capacity, be constructed to slow the loss of fronting beach. Filling the groins to entrapment capacity will ensure that they do not interfere with longshore sediment transport. As the shoreline retreats, the groins should either be shortened or artificially filled with sand. Once the area is again protected by a barrier beach, the groins should be removed since they will no longer be needed. An ongoing condition requiring beach restoration should be required, in the event that the beaches are not fully restored by natural processes. (JM pars. 50, 51). The Department recommends that a single entity file a Notice of Intent for the entire project in order to ensurethat the revetment is constructed in a contiguous manner, and that mitigation is implemented and coordinated throughout the lifetime of the project. (JM 52).

The Applicants have arrived at exaggerated and flawed conclusions regarding the imminence and the extent of the erosion they will face. Witnesses who are either unqualified, or

lack familiarity with all of the facts relating to current site conditions, have relied on outdated, irrelevant and incomplete facts to arrive at incorrect conclusions.

The Department believes that the Little Beach area will temporarily be subjected to high rates of erosion in the future. Piecemeal construction of isolated revetments however, will cause considerable damage to significant protected coastal dune and beach areas, will have potentially devastating consequences for unrevetted areas, and are likely to be flanked and fail. The plan more fully outlined in the FEIR, involving the use of temporary groins filled to entrapment, and a continuous revetment, combined with an ongoing condition requiring beach nourishment, will have negligible long term environmental impact and is acceptable to the Department.

Dept. of Environmental Protection, by

Vincent Maraventano
Assistant General Counsel
Dept. of Environmental Protection
One Winter Street
Boston, MA 02108
Tel (617) 292-5728
FAX (617) 338-5511

Date:

EXHIBIT 1

October 26, 1993

Nicholas B. Spoutter, Esq.
One Washington Street
Wellesley, MA 02181

Re: Alfred B. Nelson
Docket Nos. 90-082 and 92-140
Wetland Variance Decision

Dear M. Soutter:

Enclosed please find the Department's Decision on Request for Variance from the Wetlands Protection Act in connection with the above applicant's request to build a stone revetment in front of his home in Chatham.

Following a thorough review of this proposal based on the regulatory criteria for granting a wetland variance, I find that a variance is not appropriate for this project. This decision is based on a number of factors which are more fully discussed in the text of the decision.

You have the right to appeal this decision. Should you wish to do so, your rights to appeal are explained fully in this decision,

Very truly yours

Daniel S. Greenbaum
Commissioner

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of	)	Docket No. 90-082
	)	File No. SE 10-804
	)	Docket No. 92-140
Alfred B. Nelson	)	File No. SE 10-987

DECISION ON REQUEST FOR VARIANCE

I. ISSUES

Alfred B. Nelson (the "Applicant") owns waterfront property containing a single family house which is located on Morris Island Road, in Chatham. It is located within a coastal beach as defined in 310 CMR 10.27. The Department of Environmental Protection, (the "Department") has also determined that it is within a coastal dune as defined in 310 CMR 10.28. The Applicant contends that the property is subject to increased erosion as a result of the breach of the barrier beach in Chatham caused by a January 1987 storm.

The Department issued two orders denying the Applicant's successive requests to build a stone revetment. The applicant appealed these orders by requesting an adjudicatory hearing. Although the Applicant obtained permission to build a sandbag wall, he still seeks to build a stone revetment.

The Department is precluded, by the Massachusetts Environmental Policy Act ("MEPA"), from making a final

decision granting permission to construct the proposed revetment unless and until an environmental impact report, ("EIR") is prepared evaluating the impacts of this and other revetments in the area of Chatham affected by the breach, G.L. c. 30 s. 61-62H, 310 CMR 11.25-11.27. The Town of Chatham has informed the Department that the draft EIR for phase II will be submitted to the Secretary around November 15, 1993. Once the phase II draft is completed the Department may proceed with the adjudicatory hearing process.

The Department intends to hold an adjudicatory hearing on the Applicant's appeal in accordance with the schedule set forth in Exhibit "A" attached hereto. This schedule will allow the Department to have the information generated by the EIR prior to making its final decision on the proposed project as required by law.

Pursuant to 310 CMR 10.36, the Applicant now seeks permission to build the permanent revetment by asking the Department to issue a variance from its regulations. He has failed to make the showing required by the variance standard set forth in section III of this decision, and for the reasons stated hereafter, the Applicant's request for a variance is denied. If the Applicant decides to appeal this denial, the Department will consider such an appeal in the course of the adjudicatory hearing on the superseding orders.

II. FACTUAL AND PROCEDURAL HISTORY

A coastal storm on January 2, 1987 caused a breach in the outer barrier beach in Chatham. This breach caused enormous changes in erosion rates, water circulation and sedimentation patterns. As a result there have been significant shoreline changes along a large portion of the Chatham coastline

formerly protected by the barrier beach, including the Little Beach area in which the Applicant's property is located.

The breach caused by the 1987 storm has migrated southward, and it is anticipated that it will continue to do so. The beach area to the north of the breach, now known as North Beach, will move to the south, in time providing protection to the Little Beach area again.

In 1988 several owners of affected coastal properties sought permission under the Wetlands Protection Act, G.L. c. 131 s. 40, to build coastal engineering structures, or revetments. As additional property owners have become affected, they have also sought permission to construct revetments.

When proponents of private projects having significant environmental impacts seek a permit from a public agency, the Massachusetts Environmental Policy Act ("MEPA"), requires the preparation of an EIR which evaluates the project in conjunction with other development, or projects existing and expected in the area, G.L. c. 30 s. 62A. Therefore the affected property owners were required to prepare an EIR evaluating the environmental impacts of the proposed revetments on the entire coastal area affected by the breach. See, Certificate of the Secretary of Environmental Affairs (the "Secretary"), dated October 27, 1988.

On March 14, 1990 the Secretary issued a new certificate repeating the requirement that the EIR cover the entire section of the Chatham coast affected by the breach. It also clarified that the area extended from the Chatham fish pier to Morris Island, and included the Little Beach area in which Applicant's property is located.

The Secretary subsequently adopted the town's recommendation that the EIR should be done in two phases.

Phase I addresses the portion of the coast north of the Applicant's property, where revetments have been constructed. Phase II addresses the portion of the affected area from the Applicant's property south to Morris Island. Revetments have not been built in this area, which is not currently jeopardized by erosion.

The EIR on phase I is now complete, and as stated previously, the draft EIR on phase II is expected to be completed around November 15, 1993. A working draft of the EIR states that the Applicant's property is currently in an accretionary stage, and is not experiencing erosion, although conditions may change in the next one to five years. The part of the outer barrier beach located southward of the breach has welded to the shore in the Little Beach area, thereby creating a wide beach area in front of the Applicant's property.

On June 22, 1989, the Applicant filed a Notice of Intent with the Chatham Conservation Commission (the "Commission"), seeking permission to build a stone revetment under both the State Wetlands Protection Act, G.L. c. 130 § 40, and the Chatham Wetlands Protection Regulations enacted under the town by-law. The structure which was labelled an "internally armored dune," consisted of a bottom layer of trap rock covered by a layer of 1/2 ton stones, another layer of two ton stones and a covering layer of sand. The plans indicate a final elevation of 16 feet.

On October 22, 1989 the Commission denied the Applicant permission to build the proposed structure under both the Wetlands Protection Act and the local regulations. The Commission concluded that the Applicant's property was a significant part of a primary dune system and that the proposed structure would significantly interfere with the natural process

of dune migration, storm damage prevention and flood control. The Commission also concluded that in the event of a major storm surge, the structure would exacerbate damage to adjacent structures.

The Applicant appealed the decision of the Commission under the local Wetlands Regulations to the Superior Court, which remanded the case to the Commission. On April 25, 1990, after conducting additional hearings, the Commission issued a new decision solely under the local regulations. In that decision the Commission determined that the proposed structures would have unacceptable environmental impacts on the foreshore and on abutters. The Commission also determined that the Applicant had not submitted adequate information from qualified coastal geologists on present and future erosion patterns and had not evaluated specific alternatives that might have less environmental impact. The Commission stated, that it was

> most concerned with maintaining the ability of the property in question and all of the neighboring properties to disperse and absorb flood waters. The proposed armored dune on the applicant's property will function as a levee under flood conditions and will divert waters to the north and to the south of the structure with the attendant concentration of hydraulic and wave action. In performing this levee function, the armored dune will aggravate flooding and storm damage to adjacent properties, virtually forcing the neighbors into building similar structures. In effect, each structure built forces the problem further down the coast.

The Superior Court upheld this decision.

The Applicant also appealed the Commission's decision by requesting that the Department issue a superseding order. On March 29, 1990 the Department issued that superseding order and denied the Applicant permission to build the proposed project was located on a significant coastal dune.[6] The Department also determined that the proposed structure did not meet the performance standards set forth in the regulations, 310 C.M.R. 10.28(3)(a) and (d) in that the proposed revetment would affect the ability of waves to remove sand from the dune and would obstruct the movement of sediment to downdrift beaches.

On December 23, 1991 the Applicant filed a second notice of intent seeking permission to build a similar revetment. The Commission found that the revised project was more extensive than the previously proposed structure and again issued an order of conditions denying the Applicant permission to build under both the Wetlands Protection Act and the Chatham regulations.

The Applicant again appealed the Commission's decision under the Act by requesting that the Department issue a superseding order. On November 9, 1992, the Department again issued a superseding order denying the Applicant

---

[6] The area on which Applicant's property is located was designated a significant coastal dune pursuant to GL c. 130 s. 105. An order has been issued pursuant to said statute, and recorded at the Barnstable Registry of Deeds on August 1, 1982, which provides at paragraph 3 (G) that "coastal engineering structures may be allowed only where such structures will have no adverse effects on adjacent property or downcoast areas".

permission to build a stone revetment. The Department determined that the second proposed revetment interfered with the ability of the coastal dune to act as a sediment source for downdrift properties, would increase the erosion of downdrift beaches and interfere with the lateral movement of the dune. The Applicant again appealed this superseding order by requesting an adjudicatory hearing.

In the meantime, the Applicant's emergency request for permission to build a temporary dura bag[2] wall, had been denied by the Town of Chatham in May 1992. Permission to build such a wall, was granted by the Department on May 11, 1992 and was authorized by the Secretary on May 19, 1992, in order to provide protection to the Applicant's house until the EIR was completed. The Applicant constructed a dura bag wall which provides significant protection for his home.

Most recently, on September 20, 1993, the Applicant requested a variance from the Department's regulations governing coastal beaches and dunes.

III. VARIANCE STANDARD

The provisions of the Department's regulations pertaining to coastal banks, coastal beaches and coastal dunes at 310 C.M.R. 10.00 *et seq.* may be waived upon a finding by the Commissioner that:

> (1) there are no reasonable conditions or alternatives that would allow the project to proceed in compliance with the regulation(s);

---

[2] Dura bags are firmly packed sand in synthetic bags, are very heavy, and can be as long as twenty feet in length.

(2) that mitigating measures are proposed that will allow the project to be conditioned so as to contribute to the protection of the interests identified in the Act; and

(3) that the variance is necessary to accommodate an overriding community, regional, state or national public interest; or that it is necessary to avoid an Order that so restricts the use of property as to constitute an unconstitutional taking without compensation.

Procedure.

A request for a variance shall be made in writing and shall include, at a minimum, the following information:

(a) a description of alternatives explored that would allow the project to proceed in compliance with the regulation(s) and an explanation of why each is unreasonable;

(b) a description of the mitigating measures to be used to contribute to the protection of the interests identified in the Act; and

(c) evidence that an overriding public interest is associated with the project which justifies waiver of the regulation(s) or evidence that the Superseding Order so restricts the use of the land that it constitutes an unconstitutional taking without compensation.

310 CMR 10.36.

IV. DISCUSSION

The Applicant has not shown that he meets any part of the above standard for obtaining a variance. He has not identified any specific mitigation measures he proposes to implement to address adverse impacts created by his proposed revetment. He has also failed to explore alternatives that would enable him to

obtain protection from storms and erosion in a manner consistent with the regulations or to explain why such alternatives are not reasonable.

The Applicant's failure to address alternatives is particularly significant. Important alternatives which he has failed to address include cooperative beach nourishment and a sandbag wall. He has not thoroughly evaluated alternatives involving the relocation of the house, raising the elevation of the house, or a combination of more than one ot the above measures.

The Applicant has not provided any evidence regarding the cost of beach nourishment in the area. He has not indicated whether there have been any efforts to undertake beach nourishment in cooperation with other neighboring properties. Nor has he addressed the issue of whether a cooperative beach nourishment program would be more successful and more cost effective than the isolated efforts attempted in the past.

In addition, the Applicant has not provided any evidence that a sandbag wall similar to that already permitted pursuant to the emergency certification is not an acceptable solution. As the area of impact caused by the breach migrates to the south of the Applicant's property, his vulneerability to erosion and storm damage will be dramatically reduced. In these circumstances, there may be good reason to use a sandbag wall rather than a stone revetment, since sandbags can be easily removed when no longer necessary. Accordingly, the continued use of a sandbag wall should be evaluated.

In addition to beach nourishment and a sandbag wall, the Applicant has not thoroughly considered the possibility of moving his house further back from the sea or elevating it. After visiting the site, the Department is of the opinion that the Applicant has ample room to relocate the house. The Applicant has presented no expert geological evidence that the anticipated rate of erosion prior to the southward migration of the breach would make such relocation futile. The Applicant's conclusory allegation that "there is no likelihood that the

houses could be moved back or stilted" is insufficient to establish that these alternatives are not feasible. He has failed to present any credible evidence on the costs of relocating or elevating the house.

To the extent that the Applicant has rejected relocation and elevation due to anticipated costs, consideration should be given to the availability of public funds to ameliorate the burdens that such costs may place on individual homeowners who choose to take such measures. The State Hazard Mitigation Grant Committee comprised of several agencies, including the Department and the Office of Coastal Zone Management, recommended that $200,000 be allocated to the Chatham area from the Federal Emergency Management Agency, ("FEMA") Hazard Mitigation Fund. Such allocation has been approved ans priority is to be given to funding flood mitigation measures in the Little Beach area. As stated in the working draft of the EIR, it should be emphasized that,

> . . . the Little Beach area is low and floods from many locations depending on the size and direction of storm approach. Protection from flooding must come from a combination of raising structures and other flood-proofing measures outlined in the Town's hazard mitigation plan.

The Applicant has also failed to satisfy the other aspects of the variance standard. He has not presented any evidence of the existence of an overriding public interest that would justify the granting of the requested variance. He has also failed to present any evidence that, in the absence of the requested variance, the application of the regulations to his property would result in a taking for which he is entitled to compensation. In the absence of such evidence, and the Applicant's failure to explore alternatives to the proposed project and to consider its effect on the surrounding area, it is

premature for me to further discuss those aspects of the variance standard relating to either the existence of an overriding public interest, or relating to a taking for which the Applicant would be entitled to compensation.

I anticipate that many if not all of the above issues will be fully explored and analyzed in the EIR to be completed shortly. I am sympathetic to the Applicant's situation as shown by my willingness to expedite this decision and to hold an adjudicatory hearing on the expedited timetable previously discussed. At the same time, permanent revetments in dune areas present major environmental problems and I am obligated to fully consider the availability of alternatives less damaging to the environment as well as the effects of the proposed project on neighboring coastal property owners. Upon completion of the necessary EIR process I direct my staff to meet with the Applicant or his representatives to review the merits of his proposal in light of the findings and recommendations of the EIR regarding comprehensive solutions to the problems of the entire coastal area.

V. APPEAL RIGHTS

This order is an action of the Department. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing, and postmarked within ten (10) business days of the date this order was issued. . . .

DANIEL S. GREENBAUM
COMMISSIONER

EXHIBIT "A"

The MEPA office of the Secretary of Environmental Affairs will issue a Certificate on the Draft Environmental Impact Report approximately six weeks after it is filed. It is anticipated that a draft report will be filed soon, and that such a certificate will be issued before the end of 1993.

Within one month from the issuance of the MEPA certificate, the Department will hold a prehearing conference on the Applicant's appeal of its denial of a Superseding Order of Conditions.

Within one month from the date of the prehearing conference the Applicant will file with the administrative law judge, all pre-filed direct testimony which the applicant intends to introduce in the adjudicatory hearing. Within one month thereafter, the Commonwealth and the Town of Chatham will file all pre-filed direct testimony which they intend to introduce at the adjudicatory hearing.

The hearing will commence within one month from the filing of all pre-filed direct testimony. The hearing record will close fourteen business days from the later to occur of the end of the hearing or the issuance by the MEPA office of a final Environmental Impact Report.

A decision will be issued within sixty days from the date that the hearing record closes.

It is within such administrative law judge's discretion to determine whether the hearing on the appeal of the Superseding Order of Conditions will be bifurcated from the hearing of the appeal of the variance denial.

May 11, 1992

Nicholas B. Soutter, Esq.
Attorney at Law
One Washington Street
Wellesley, MA 02181

RE: Chatham—Wetlands
Emergency Certification
Alfred B. Nelson
27 Morris Island Road

Dear Mr. Soutter:

The Department of Environmental Protection is in receipt of your request, dated May 7, 1992, for an Emergency Certification at the above-referenced address. The Department is issuing the enclosed Emergency Certification to install sand-filled bags as a temporary measure to abate erosion threatening the Nelson home, in accordance with an agreement reached with the Office of the Attorney General, as set forth in a letter, dated January 29, 1992 (copy attached). This Emergency Certification is issued pursuant to the Wetlands Protection Act, M.G.L., c. 131, Section 40, and subject to the specified written conditions.

This Emergency Certification allows the temporary use of sand-filled bags, as proposed by the Nelsons, to abate the emergency until such time as all necessary permits may be obtained for a more permanent solution which complies with the performance standards of the Wetland Protection Act Regulations, 310 CMR 10.00. As you know, the Nelsons must comply with the requirements of the Massachusetts Environmental Policy Act, before the Department can issue a Final Order of Conditions approving any project proposing the

alteration of the primary dune. It is therefore necessary that the Nelsons fully participate in the development and implementation of the comprehensive plan (Environmental Impact Report) which is currently being pursued by the Town of Chatham to address the erosion caused by the Chatham Breach, or prepare their own Environmental Impact Report which meets the requirements of the Secretary of the Executive Office of Environmental Affairs.

Please be advised that the Department views this method of erosion abatement as temporary in nature, and once again strongly urge4s the Nelsons to elevate the house, and move it landward of its present location. The Department is willing to assist with this effort, and to expedite such a request to relocate the dwelling in accordance with the Wetlands Protection Act.

If you have any questions, or need additional information, please contact me, of Jim Mahala, at telephone number (508)946-2800, or at the above referenced address.

Very truly yours,

Elizabeth A. Kouloheras, Chief
Wetlands Section

COMMONWEALTH OF MASSACHUSETTS
WETLANDS PROTECTION ACT AND REGULATIONS,
G.L. 131, § 40, 310 CMR 10.00

EMERGENCY CERTIFICATION

FROM: Department of Environmental Protection

TO: Nicholas B. Soutter	Alfred Nelson
(Name of Applicant)	(Name of Property Owner)
One Washington Street	27 Morris Island Road
(Address)	(Address)
Wellesley, MA, 02181	Chatham, MA, 02633

DATE: May 11, 1992

LOCATION: 27 Morris Island Road

FINDINGS:

1. The Department hereby certifies pursuant to 310 CMR 10.06 that the work described below is necessary for the protection of the health and safety of the Citizens of the Commonwealth and will be performed by or has been ordered to be performed by an agency of the Commonwealth or a subdivision thereof.

2. A site inspection was performed on May 7, 1992.

3. The agency authorizing the emergency work is the Office of the Attorney General . (Not the commission unless work is on land owned or controlled by them.)

4. Describe below, the work which is allowed to proceed under this certification. No work beyond that necessary to abate the emergency may be so certified.

Placement of sandbags within a Coastal Dune, 310 CMR 10.28 and a Coastal Beach, 310 CMR 10.27, in accordance with the plan entitled "NELSON PROPERTY", dated May 6, 1992, signed by R.H. Wilson, P.E., provided that the owners' permission is obtained to install the sandbags on their property in accordance with condition numbers 6 & 7 below. Additional emergency certification, pursuant to the Wetlands Protection Act, is necessary prior to the replacement of any damaged bags. See additional conditions #'s 1-12, attached.

5. The above-described work shall be completed by June 10, 1992(date). (Work performed under an Emergency

Certification shall not exceed 30 days from the date of certification unless the Commissioner of DEP so approves.

Issued by:

Elizabeth A. Kouloheras, Chief
Wetlands Section

Special Conditions-Emergency Certification-Alfred B. Nelson, 27 Morris Road, Chatham

1. The sand to be used will be special borrow quality sand with less than 10% passing the #200 sieve (fines) of a grain size comparable to the existing beach/dune sand.
2. The sand shall be brought in from a suitable upland off-site location. Use of existing beach/dune sand is prohibited. Verification of the borrow pit may be required.
3. Any fill required to support the sand filled bags shall be consistent with the grain size as referenced under special condition #1.
4. Use of cement concrete or a similar hardening add-mixture within the bag is prohibited.
5. For drainage purposes 4 inch PVC pipe should be installed at 10 feet on center for every other course of sandbags.
6. The plan of record for Chatham Wetlands File No. SE# 10-987, dated 12/26/91, by Coastal Engineering Co., references Bearse's Lane as a 20 foot wide Town Way. Whereas, your proposal calls for crossing Bearse's Lane and connecting the sandbags with the existing stone revetment at the Chatham Beach and Tennis Club prior approval of the property owners (for Bearse's Lane and the Beach and tennis Club) will be required.
7. In the absence of the granting of property rights, a sandbag return may be installed on the Nelson property, parallel and adjacent to Bearse's Lane and Mr. Nelson's Northern property line.

8. The existing "unpermitted" timber bulkhead must be removed within 30 days upon completion of the installation of the sand filled bags.
9. Any work proposed below Mean High Water, will require your obtaining emergency authorization pursuant to M.G.L., c. 91.
10. Because the Nelsons own more the 300' of property between the existing dwelling, and Morris Island Road, the Department strongly recommends that the property owners investigate the feasibility of relocating the house landward of its present location, and/or elevating the house of a properly designed pile foundation, above the Base Flood Elevation.
11. Upon the showing of any adverse affect the Department reserves the right to order the removal or modification of the sand filled durabags.
12. It is an express condition of this Emergency Certification that the Nelsons take, as expeditiously as possible, all necessary steps to obtain the permits required for a permanent solution to protect the structure. Failure to meet this condition may be cause for the Department to require the Nelsons to remove the sandbags permitted under this Emergency Certification, or to take other measures to bring the Nelsons into compliance with the Wetlands Protection Act.

TOWN OF CHATHAM

Conservation Commission

FINDINGS ON APPLICATION FOR PERMIT
UNDER WETLANDS PROTECTION BY-LAW

APPLICANT: Alfred B. Nelson

ADDRESS: P.O. Box 8995
Naples, FL 33940

LOCATION OF WORK: 27 Morris Island Road

After public hearing in accordance with open meeting law M.G.L. Ch. 39, s. 23B, closed on January 28, 1992 , the Chatham Conservation Commission, in accordance with the Town of Chatham Wetlands By-Law finds:

Permit is granted - work may proceed;

Permit is denied;

This project is denied because it does not meet the performance standards of the Town of Chatham Wetlands Protection By-Law, 2.02 and 2.03.

Conservation Commission

SUPERSEDING
Order of Conditions
Massachusetts Wetlands Protection Act
G.L. c. 131, §40
DENIAL

From Department of Environmental Protection

To Alfred Nelson (Name of Applicant) — Same (Name of property owner)

Address 401 Edwards - 1500 Shreveport, LA 71101 — Address Same

This Order is issued and delivered as follows:

by hand delivery to applicant or representative on (date)

x by certified mail, return receipt requested on March 29, 1990(date)

This project is located at 27 Morris Island Road

The property is recorded at the Registry of Deeds, Barnstable

Book Page

Certificate(if registered) 29197, 68253

Notice of Intent for this project was filed on June 22, 1989
(date)

The public hearing was closed on September 6, 1989
(date)

Findings

The Department has reviewed the above referenced Notice of Intent and plans and has held a public hearing on the project. Based on the information available to the Department at this time, the Department has determined that the area on
Effective 11/10/89 5-1
which the proposed work is to be done is significant to the following interest in accordance with the Presumptions of Significance set forth in the regulations for each Area Subject to Protection Under the Act(check as appropriate):

Public water supply x Flood control Land containing shellfish
Private water supply x Storm damage prevention Fisheries
Ground water supply Prevention of pollution
x Protection of wildlife habitat

Total Filing Fee Submitted State Share
City/Town Share (0 fee in excess of $25)
Total Refund Due $ City/Town Portion $ State Portion $

(0 total) (0 total)

Issued by the Department of Environmental Protection

Signature

Elizabeth A. Kouloheras, Chief, Wetlands Section

On this 29th day of March 19 90 , before me personally appeared Elizabeth A. Kouloheras to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

Jeanne E. Turney — Sept. 21, 1995

Notary Public — My commission expires

The applicant, the owner, any person aggrieved by the Superseding Order, any owner of land abutting the land upon which the proposed work is to be done, or any ten persons pursuant to G.L. c. 30A §10A, are hereby notified of their right to request an adjudicatory hearing pursuant to G.L. c. 30 §10A, providing the request is made be certified mail or hand delivery to the Department, with the appropriate filling fee and Fee Transmittal Form as provided in 310 CMR 10.03(7), within ten days from the date of issuance of this Superseding Order, and is addressed to: Docket Clerk, Office of General Counsel, Department of Environmental Protection, One Winter Street, Boston, MA 02108. A copy of the request shall at the same time be sent by certified mail or hand delivery to the conservation commission, the applicant, and any other party.

. . .

SUPERSEDING
Order of Conditions
Massachusetts Wetlands Protection Act
G.L. c. 131, §40
DENIAL

From Department of Environmental Protection

To Lewis Hicks, III (Name of Applicant) Same (Name of property owner)

Address Box 6308 Lawrenceville, NJ 08648 Address Same

This Order is issued and delivered as follows:

by hand delivery to applicant or representative on (date)

x by certified mail, return receipt requested on November 20, 1990(date) P 707 026 846

This project is located at 40 Dune Drive

The property is recorded at the Registry of Deeds, Barnstable

Book 1342 Page 997

Certificate(if registered)

Notice of Intent for this project was filed on February 5, 1990 (date)

The public hearing was closed on March 21, 1990 (date)

Findings

The Department has reviewed the above referenced Notice of Intent and plans and has held a public hearing on the project. Based on the information available to the Department at this time, the Department has determined that the area on
Effective 11/10/89 5-1
which the proposed work is to be done is significant to the following interest in accordance with the Presumptions of Significance set forth in the regulations for each Area Subject to Protection Under the Act(check as appropriate):

Public water supply x Flood control Land containing shellfish
Private water supply x Storm damage prevention Fisheries
Ground water supply Prevention of pollution
x Protection of wildlife habitat

Total Filing Fee Submitted 250.00 State Share 112.50

City/Town Share 137.50 (0 fee in excess of $25)
Total Refund Due $ City/Town Portion $ State Portion $

(0 total) (0 total)

Issued by the Department of Environmental Protection

Signature

Elizabeth A. Kouloheras, Chief, Wetlands Section

On this 20th day of November 19 90 , before me personally appeared Elizabeth A. Kouloheras to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

Jeanne E. Turney
Notary Public

Sept. 21, 1995
My commission expires

The applicant, the owner, any person aggrieved by the Superseding Order, any owner of land abutting the land upon which the proposed work is to be done, or any ten persons pursuant to G.L. c. 30A §10A, are hereby notified of their right to request an adjudicatory hearing pursuant to G.L. c. 30 §10A, providing the request is made be certified mail or hand delivery to the Department, with the appropriate filling fee and Fee Transmittal Form as provided in 310 CMR 10.03(7), within ten days from the date of issuance of this Superseding Order, and is addressed to: Docket Clerk, Office of General Counsel, Department of Environmental Protection, One Winter Street, Boston, MA 02108. A copy of the request shall at the same time be sent by certified mail or hand delivery to the conservation commission, the applicant, and any other party.

. . .

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of	)	DEP Docket No. 92-140
	)	File No. SE 10-987
Alfred B. Nelson	)	
	)	
	)	
In the Matter of	)	DEP Docket No. 92-152
	)	File No. SE 10-1027
Lewis W. Hicks	)	
	)	

PRE-FILED TESTIMONY OF JAMES MAHALA

Qualifications

I. My name is James Mahala. I have been employed by the Department of Environmental Protection, Division of Wetlands, as an Environmental Analyst since September 1986, and since December 1990, as an Environmental Analyst IV.

II. I hold a Bachelor of Science degree in Geology from the State University of New York at Oneonta (1982) and a Master of Science degree in Coastal Geology from Western Washington University (1985).

III. I have co-authored the following publications:

- Schwartz, M.L., Mahala, J., and Bronson, H.S., 1985,

Net Shore-Drift Along the Pacific Coast of Washington State: Shore and Beach, v. 53, pp. 21-25.

- Schwartz, M.L., and Mahala, J., 1985, Clallam County, Washington, Net Shore-Drift: Washington State Department of Ecology, 13 p.

- Schwartz, M.L., and Mahala, J., 1985, Jefferson County, Washington, Net Shore-Drift: Washington State Department of Ecology, 11 p.

IV. I have co-authored the following abstracts:

- Schwartz, M.L., Mahala, J., and Bronson, H.S., Net Shore Drift Along the Pacific Coast of Washington State: Geological Society of America, Cordilleran Section, Vancouver, B.C., Canada, May 1985.

- Schwartz, M.L., Mahala, J., and Bronson, H.S., Net Shore Drift Along the Pacific Coast of Washington State: West Coast Regional Coastal Design Conference, Oakland, CA, November, 1985.

5. My work at the Department includes administering and enforcing the Wetlands Protection Act ("the Act"), M.G.L., c. 131, s.40, and the regulations that implement the Act at 310 CMR 10.00. My responsibilities include the review of designs of coastal engineering structures proposed in coastal areas protected by the Act. I also provide technical expertise on the impacts of proposed projects on such areas.

6. In the performance of these duties I review Notices of Intent, site plans, and complex calculations and write Orders of Conditions, Determinations of Applicability, Enforcement Orders, Notices of Noncompliance, and Penalty Assessment Notices. These duties require that I conduct on-site inspections to identify and delineate coastal and inland wetland resource areas, including coastal dunes, coastal beaches and coastal

banks. I also assess the potential impact of proposed projects on the statutory interests of the Act. As an Environmental Analyst IV, I am also responsible for reviewing the work of wetlands staff of lower grade.

7. During my tenure with the Department I have conducted over 300 on-site inspections. Most of my field experience with the Department has been along the Massachusetts coastal zone, with a particular emphasis on Cape Cod. I have qualified and testified as an expert witness in several adjudicatory proceedings before the Department on the extent and type of coastal resource areas as well as the impact of proposed activities on such areas. I have submitted technical affidavits in court supporting the scientific basis of the Coastal Wetland Regulations. I have provided technical assistance to the Division of Waterways, Department of Environmental Management, the State Attorney Generals' Office, andto local Conservation Commissions.

8. I am familiar with the shoreline of Chatham, and I have personally worked on at least ten (10) revetment proposals along the inner-shoreline of Pleasant Bay (Chatham Harbor). I have conducted numerous on-site inspections (approximately 25 site visits) along the Chatham shoreline since the formation of the new inlet and have provided technical assistance to the Town of Chatham and Aubrey Consulting, Inc., in developing the Environmental Impact Report for this area. I most recently visited this area on April 26, 1994.

History of the Proceedings

9. On or about December 23, 1991, Alfred B. Nelson filed a Notice of Intent with the Conservation Commission in the town of Chatham and the Department (Ex. 1) describing the construction of a stone revetment upon a coastal beach. On or

about May 15, 1992, Lewis W. Hicks, filed a Notice of Intent with the Conservation Commission in the town of Chatham and the Department (Ex. 2) describing the construction of a stone revetment behind a primary coastal dune.

10. On January 16, 1992, the Department issued file number SE 10- 987 to Mr Nelson's filing and on June 5, 1992, the Department issued file number SE 10-1027 to Mr. Hick's filing.

11. On or about January 30, 1992, the Chatham Conservation Commission issued an Order of Conditions (Ex. 3) denying the project proposed by Mr. Nelson. The Commission's Order of Conditions denied the proposed project because the proposal did not meet the performance standards for Coastal Beaches (310 CMR 10.27) and Coastal Dunes (310 CMR 10.28). On or about July 2, 1992, the Chatham Conservation Commission issued an Order of Conditions (Ex. 4) denying the project proposed by Mr. Hicks. The Commission's Order of Conditions denied the proposed project because the proposal did not meet the performance standards for Coastal Dunes (310 CMR 10.28).

12. On July 8, 1992, Nicholas B. Soutter, Esq., representing Mr. Nelson, appealed the Commission's Order of Conditions to the Department. On February 7, 1992, Mr. Soutter, representing Mr. Hick's, appealed the Commission's Order of Conditions to the Department.

13. On April 7, 1992, I conducted an on-site inspection of the Nelson property. On November 7, 1989, I conducted an on-site inspection of the Nelson property in conjunction with a previous wetland filing. The Department waived the on-site inspection of the Hick's property, in accordance with 310 CMR 10.05 (7)(i), because said inspection would not have been

either necessary or useful for a proper and complete review of the proposed project. I had previously inspected Mr. Hick's property on February 1, 1988,and on several other occasions prior to waiving the on-site inspection.

14. On October 20, 1992, the Department issued a Superseding Order of Conditions denying the Nelson's proposal (Ex. 5). On November 9, 1992, the Department issued a Superseding Order of Conditions denying the Hick's proposal (Ex. 6). The Department's Orders cited as the reasons for denial its determination "that the project area is significant to storm damage prevention and flood control." Specifically, the Department denied the proposed projects because the proposed revetments would result in impacts to the coastal beach and coastal dune that do not meet the performance standards established by 310 CMR 10.27 and 10.28. Furthermore, the Department determined that the proposed revetments would not comply with terms of a Wetland Restriction Order which was recorded at the Registry of Deeds against the subject properties pursuant to M.G.L., Chapter 130, Section 105 (Ex. 7— July 1, 1982 Wetlands Restriction Order), (Ex. 8—Wetlands Restriction Program Aerial Photograph, April/May, 1978). The Department determined that the proposed revetments would obstruct the movement of sediment and would adversely affect adjacent properties and downcoast areas. These impacts are expressly prohibited under the terms of the Wetland Restriction Order.

15. On October 28, 1992, Nicholas B. Soutter, Esq., representing Mr. Nelson, appealed the Department's Superseding Order ofConditions for an adjudicatory hearing. On November 20, 1992, Mr. Soutter, representing Mr. Hick's,

appealed the Department's Superseding Order of Conditions for an adjudicatory hearing.

16. The Department's Superseding Orders of Conditions informed the applicants that because the proposed projects involve the alteration of a primary dune, if the Superseding Orders were appealed, the Applicants would be required to file an Environmental Notification Form (ENF) pursuant to the Massachusetts Environmental Policy Act (MEPA). Mr. Nelson filed an ENF (EOEA #8133), (Ex. 9), and received a Certificate from the Secretary of Environmental Affairs on March 14, 1990, (Ex. 10), requiring the preparation of an Environmental Impact Report (EIR). The area immediately to the north of the Nelson property was the subject of an earlier MEPA filing, EOEA #7345, for which an EIR was also required. The Secretary subsequently amended the scope for EOEA #7345 and requested that a single EIR analyze the entire shoreline from Aunt Lydia's Cove on the north to Morris Island on the south. Aubrey Consulting, Inc. (ACI), hired by the Town of Chatham and others, accomplished this by analyzing the Chatham shoreline in two phases. The Phase I EIR dealt with the adequacy of revetment construction and mitigation from Aunt Lydia's Cove to the Chatham Beach and Tennis Club. The Phase II EIR, (Exhibit 11—Phase II DEIR, December 6, 1993), analyzed various shoreline protection alternatives for the unprotected area commencing south of the Beach and Tennis Club to Morris Island. The MEPA scope for the Phase IIarea also mandated that mitigation requirements and the significance of each coastal wetland resource area be evaluated. The Nelson and Hicks properties are both included in the Phase II EIR.

17. In the October 27, 1988, Certificate (EOEA #7345) and again in the March 14, 1990, Certificate (EOEA #8133), the Secretary of Environmental Affairs requested that a single EIR be prepared so that a comprehensive system-wide solution to the coastal erosion problems could be addressed. A comprehensive EIR is necessary to inform the regulatory agencies of the potential effects of various shoreline protection alternatives and to develop an appropriate mitigation and monitoring program to ensure that adjacent and downdrift property owners are not adversely effected by ill-advised coastal construction. Further, an EIR prepared from a regional perspective is the preferred way to study the Chatham shoreline due to the complex and dynamic nature of the Nauset breach cycle and its resulting erosion patterns.

Site Description and Significance

18. The Nelson property is located immediately south of the Chatham Beach and Tennis Club. The Nelson property is bounded on the south by an undeveloped lot also owned by the Nelsons. Presently, the Nelson dwelling is fronted by a primary coastal dune and an approximately 300 foot wide coastal beach.

19. The Hicks property is located at the eastern end of Dune Drive about 1000 feet south of the Nelson property. The Hicks' dwelling is fronted by a primary coastal dune and a broad coastal beach significantly wider than that found in front of the Nelson's dwelling. Commencing at the Hicks property (near the house) and continuing southward is a distinct break in slope between the fronting coastal dune and an area of artificial fill. Absent subsurface boring information on the characteristics of the fill sediments, I would delineate the fill area as coastal dune in accordance with the definition at 310

CMR 10.28 (2) which states, in part, that "Coastal dune also means sediment deposited by artificial means and serving the purpose of storm damage prevention and flood control." Further, the U.S. Geological Survey has identified both the Nelson and Hicks properties as containing Beach Deposits, designated as "(Qb)"; and Dune Deposits, Undifferentiated, designated as "(Qd)" (Ex.12—USGS Chatham Quadrangle, GQ-911, 1970). Thus, it is likely that the artificial fill overlays a coastal dune deposit.

20. The following is a brief review of the regional coastal geology. On January 2, 1987, during a severe northeasterly storm, Nauset Beach was breached at a point almost directly east of Chatham Lighthouse. The new inlet resulted in an increase in tidal range and wave energy within Chatham Harbor producing coastal erosion and channel shoaling problems.

21. Numerous studies have contributed to the understanding of the evolution of the Nauset Beach-Monomoy barrier system, (Exhibit 13— Geise, Graham, S., "Cyclical Behavior of the Tidal Inlet at Nauset Beach"), (Ex. 14 — Geise, Aubrey and Liu, "Cyclical Behavior of the Tidal Inlet at Nauset Beach, Chatham, MA"). One particularly interesting feature of the system's behavior is its approximately 150-year cycle of change. To describe the process briefly, the cycle occurs as the Nauset barrier beach system elongates to the south and begins to increasingly restrict the entrance channel to Pleasant Bay (Chatham Harbor). Eventually, this process sets up the conditions necessary for a breach of Nauset Beach to develop into a new inlet. Prior to the 1987 breach of Nauset Beach, the geomorphological and hydrodynamical conditions existed such that the probability of such a breach and new inlet development was relatively high. The last cycle in the Nauset

Beach barrier was initiated in 1846 during a severe coastal storm when the barrier breached and a new inlet formed.

22. The January 1987 breach of Nauset Beach and subsequent development of a new inlet represents a new cycle in the history of the Nauset barrier system. Presently, the new inlet is responsible for the increase in tidal range and shoreline erosion within Pleasant Bay (Chatham Harbor) and in the vicinity of the Applicants' properties. However, as littoral drift causes the new inlet, and eventually North Beach, to migrate southward over time, the focus of coastal erosion will also shift south of the Applicants' properties.

23. Current site conditions in the immediate vicinity of the Applicants' properties indicate that a broad, low-lying barrier sand spit offers considerable protection to the Little Beach area, including the Applicants' properties. This barrier spit is attached to the mainland at approximately the Chatham Lighthouse and extends out to South Beach.

24. The Draft EIR (DEIR) states that "At the time this DEIR was written there was no erosion problem in the Little Beach area. Instead, there has been rapid accretion at the north end of Little Beach during the past few years." The rapid accretion is related to the formation of the barrier spit referred to in paragraph 23 above. I agree with the DEIR in this regard.

25. Aubrey Consulting, Inc. (ACI) predicts that the Applicants' properties will be threatened in the near future. I agree that the Applicants' properties will eventually be threatened due to erosion. ACI predicts that it will take between 2 - 10 years for the spit connecting South Beach with the mainland to breach and break up, thereby exposing the Applicants' properties to wave attack. In the long term,

however, the cycle of the Nauset barrier beach system indicates that the Applicants' properties will eventually receive greater protection due to southward moving littoral drift causing North Beach to migrate southward over time. As a result of this littoral drift, the focus of coastal erosion will begin to shift south of the Applicants' properties. This is one of the unique features of this complex coastal system.

26. Coastal beach, is defined as "unconsolidated sediment subject to wave, tidal and coastal storm action which forms the gently sloping shore of a body of salt water and includes tidal flats. Coastal beaches extend from the mean low water line landward to the dune line, coastal bankline or the seaward edge of existing man- made structures, when these structures replace one of the above lines, whichever is closest to the ocean." 310 CMR 10.27 (2) "Coastal beaches dissipate wave energy by their gentle slope, their permeability and their particulate nature, which permits changes in beach form in response to changes in wave conditions." 310 CMR 10.27(1).

27. A critical characteristic of coastal beaches is their ability to respond to changes in wave action. Wave action is the principal driving force responsible for the transport of beach sediments. The oblique approach of waves moves sediment along shore in the general direction of wave travel. The net rate of longshore beach sediment transport depends upon the angle of wave approach, the wave energy, and the wave steepness (the ratio of wave height to wave length). The characteristics of the sediment being transported, as well as the form of the beach, also affects the rate of longshore sediment transport.

28. As deep water waves approach the shore they begin to feel the bottom. Contact with the bottom transforms the wave

form causing it ultimately to break upon the beach. This breaking generates turbulence in the water which dissipates wave energy and transports sediment lifted off the bottom. Most of the remaining wave energy is dissipated as the turbulent mass rushes up the beach slope, with some of the energy lost by percolation into the beach.

29. When there is an increase in the incoming wave energy, as in larger storms, the beach adjusts its profile to facilitate the dissipation of the additional energy. This is accomplished by transporting beach sediment seaward resulting in the formation of an offshore bar. The offshore bar causes waves to break further seaward, widening the surf zone over which wave energy will be dissipated. Tides compound the dynamic beach response by constantly changing the elevation at which the water intersects the shore. Thus, the beach is always adjusting to changes in both wave energy and water level.

30. The motion of beach sediment in response to wave action has been studied by marking the sediment with fluorescent dyes and tracing its movement. When waves strike the shore at an angle sediment grains move alongshore in the general direction of wave travel. Thus, the coastal beach at any point serves as a sediment source for the beach down the shore from that point.

31. Coastal beaches serve as a sediment source for dunes and subtidal areas as well. Steep storm waves cause beach sediment to move offshore, resulting in reduced beach volume, gentler beach slope and greater energy dissipation for nearshore areas of land under the ocean. Following storms, less steep waves return sediment landward and the beaches can recover to approximately pre-storm conditions. The net movement of sediment, either onshore or offshore, at a particular location

depends upon many factors including the characteristics of the sediment, the beach, or the nearshore land under the ocean, the nearshore hydraulics, and the incoming waves, all of which are interdependent. Along the inner shoreline of Chatham, onshore/offshore sediment transport is further complicated due to the presence of strong tidal currents in the navigational channel which lies close to the inner shore.

32. Coastal beaches serve the purpose of storm damage prevention and flood control by dissipating wave energy and by providing sediment to supply other coastal wetland resource areas including coastal dunes, nearshore areas of land under the ocean and other coastal beaches.

33. Coastal dune, as defined at 310 CMR 10.28 (2), means "any natural hill, mound or ridge of sediment landward of a coastal beach deposited by wind action or storm overwash. Coastal dune also means sediment deposited by artificial means and serving the purpose of storm damage prevention or flood control." Coastal dunes occur either as part of a barrier beach complex or fronting a coastal bank or upland. The coastal dunes in the vicinity of the applicant's properties are backed by coastal banks, artificial fill areas and/or uplands. Coastal dunes aid in storm damage prevention and flood control by supplying sand to coastal beaches, thereby furthering the dissipation of wave energy. Coastal dunes protect inland coastal areas from storm damage and flooding by storm waves and storm elevated sea levels because such dunes are higher than the coastal beaches which they border. In order to protect this function, coastal dune volume must be maintained while allowing the coastal dune shape to conform to natural wind and water flow patterns. On retreating shorelines, the ability of coastal dunes bordering the coastal beach to move landward at

the rate of shoreline retreat allows these dunes to maintain their form and volume, which in turn promotes their function of protecting against storm damage or flooding.

34. For the aforementioned reasons the Department has determined that the project sites are significant to the statutory interests of flood control and storm damage prevention.

Effects of the Proposed Work

35. The Nelson project involves the construction of a 320 foot long, two-sided revetment along the landward edge of a primary Coastal Dune. The proposed revetment would be constructed acrossboth lots owned by the Nelson's. The revetment would consist of a 2-4 ton primary armor stone layer, a 2-4 ton secondary armor stone layer, a 0.5 ton stone cover layer placed over an eighteen inch thick layer of 6-8 inch trap rock bedding which in turn would be placed over filter cloth. The landward side of the proposed revetment would consist of a 2-4 ton armor layer, a 0.5 ton stone cover layer placed over an eighteen inch thick layer of 6-8 inch trap rock bedding which in turn would be placed over filter cloth. The top elevation of the revetment would be set at 16 feet above mean sea level.

36. The Hicks' project involves the construction of a 125 foot long two-sided revetment along the landward edge of a Coastal Dune. The Hicks' revetment utilizes the same design as the Nelson's revetment.

37. Because the proposed revetments would be emplaced in a Coastal Dune they must comply with the performance standards for Coastal Dunes at 310 CMR 10.28 (3). These standards require that "any alteration of, or structure on, a coastal dune or within 100 feet of a coastal dune shall not have an adverse effect on the coastal dune by:

(a) affecting the ability of waves to remove sand from the dune;

(b) disturbing the vegetative cover so as to de-stabilize the dune:

(c) causing any modification of the dune form that would increase the potential for storm or flood damage;

(d) interfering with the landward or lateral movement of the dune;

(e) causing any removal of sand from the dune artificially; or

(f) interfering with mapped or otherwise identified bird nesting habitat."

38. Because the proposed revetments would be emplaced within the buffer zone of a Coastal Beach it must comply with the performance standards for Coastal Beaches at 310 CMR 10.27 (3). These require that "any project on a coastal beach, except any project permitted under 310 CMR 10.30 (3)(a), shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift beach."

39. The construction of two separate revetments will not meet the performance standards for Coastal Dunes at 310 CMR 10.28 (3) (a), (c) and (d) and Coastal Beaches at 310 CMR 10.27 (3).

40. The proposed revetments would have an adverse effect on the adjacent and downdrift coastal beaches and dunes for the reasons given in the following paragraphs.

41. The proposed revetments would change the beach from a dissipative one to a reflective one leading to increased beach scour. Sediment transport due to wave reflection is a commonly cited process in the interaction between beaches and

revetments. Reflection from revetments increases the applied energy to the sedimentary bed leading to increased scour in front of the wall and some distance downcoast. This occurs because both incoming waves and those waves reflected from the revetment apply their erosive energies to the beach. In this way revetments accelerate the transport of sediment in front and downdrift of the revetment.

42. Revetments also have adverse impacts on adjacent beaches and/or dunes. This phenomena is often referred to as flanking or end scour. This is a well documented problem and is defined as the excess erosion which the presence of the structure causes to occur beyond the naturally occurring erosion. This excessive erosion leads to acceleration of the loss of beach in front of neighboring properties. It is this problem that forces neighboring property owners to erect revetments and leads to the proliferation of walls.

43. The proposed revetments will impound sediment behind them thereby removing a source of sediment which would otherwise be available to provide storm damage protection to downdrift properties. This sediment would be significant (i.e. would play a role) to the protection of the storm damage prevention interest of the Act. The loss of these sediment sources are particularlysignificant if revetments are allowed to be constructed with gaps (non-contiguous).

Conclusions

44. Based upon the preceding, I conclude that the construction of the proposed revetments within a Coastal Dune and in the buffer zone to a Coastal beach would adversely effect the statutory interests of storm damage prevention and flood control in that:

a. The proposed revetments would enhance scour by reflecting wave energy thereby leading to the narrowing and lowering of the coastal beach and enhancing erosion of the abutting and downdrift coastal dunes, impacts expressly prohibited by the performance standards for Coastal Beaches at 310 CMR 10.27 (3) and Coastal Dunes at 310 CMR 10.28 (3) (a), (c) and (d).

b. The proposed revetments would enhance erosion of the downdrift beaches and dunes through reflection of wave energy inducing end scour. This impact is prohibited by the performance standards for Coastal Beaches at 310 CMR 10.27 (3) and Coastal Dunes at 310 CMR 10.28 (3) (a), (c) and (d).

c. The proposed revetments would impound sediment behind them and would therefore deprive sediment for the downdrift coastal resources. This impact is prohibited by the performance standards for Coastal Beaches at 310 CMR 10.27 (3) and Coastal Dunes at 310 CMR 10.28 (3) (a), (c) and (d).

d. The proposed revetments would not comply with terms of a Wetland Restriction Order which was recorded at the Registry of Deeds against the subject properties pursuant to M.G.L., Chapter 130, Section 105. The proposed revetments would obstruct the movement of sediment and would adversely affect adjacent properties and downcoast areas. These impacts are expressly prohibited under the terms of the Wetland Restriction Order at 3 (G) and 4 (E).

45. There are alternative means of protecting the Applicants' properties and the entire Little Beach area for that matter in a more comprehensive manner that would not result

in adverse impacts to abutting and downdrift property owners. Personnel from the Department and the Massachusetts Office of Coastal Zone Management (CZM) have worked extensively with the Town of Chatham and Aubrey Consulting, Inc., to formulate a comprehensive plan for the protection of the Little Beach area while preserving the natural resources to the maximum extent possible. Following is a description of the Department's involvement in the development of the EIR for this area.

(a) On February 1, 1988, November 7, 1989 and April 7, 1992, in conjunction with the applicants' request for Superseding Orders of Conditions, I visited the area where the applicant's properties are located.

(b) On May 11, 1992, the Department issued an Emergency Certification to Alfred Nelson permitting the construction of a temporary sand bag structure to abate the threat of erosion until a comprehensive long-term solution could be developed by the Nelsons. Said sand bag structure consists of PVC-coated polyester dura bags that fill with sand and are about 20 feet long. The applicant constructed a dura bag wall which provides considerable protection for his home. Prior to this Certification, the applicants agreed to participate with the Town of Chatham and others in the preparation of an Environmental Impact Report that evaluates the impacts of various measures on the entire area affected by the 1987 breach. An Environmental Impact Report is needed to analyze the potential impact that coastal erosion controls at one location may have on adjacent or downcoast areas. A system-wide approach to the coastal erosion problems along the inner-shore of

Chatham Harbor is necessary due to the unusual and dynamic nature of the Nauset breach cycle and its resulting erosion patterns.

(c) On or about September 27, 1993, I began to review portions of a working draft EIR (WDEIR). The purpose of my review was to prepare comments on the proposals in the WDEIR, and to expedite completing a Final Environmental Impact Report.

(d) On October 13, 1993, I met with Dave Aubrey, Lee Weisher, and John Ramsey of Aubrey Consulting, Inc., personnel from the Massachusetts Office of Coastal Zone Management, personnel from the MEPA Office, personnel from the Cape Cod Commission, andrepresentatives from the Town of Chatham to discuss the contents of the draft EIR for the Little Beach area of Chatham. The purpose of this meeting was to facilitate the preparation of the EIR by ensuring that all alternatives to shoreline armoring are given proper consideration and that appropriate mitigating measures are incorporated into the recommended plan.

(e) On October 21, 1993, I accompanied personnel from Aubrey Consulting, Inc., personnel from the Cape Cod Commission staff, and Jim O'Connell from the Massachusetts Office of Coastal Zone Management (CZM) on a site visit. The purpose of this site visit was to provide technical feed-back on resource area delineations and to facilitate the preparation of the EIR.

(f) On October 29, 1993, I submitted comments on the WDEIR to Aubrey Consulting, Inc.

(g) On January 28, 1994, I submitted comments on the DEIR to Aubrey Consulting, Inc.

46. The DEIR prepared by ACI evaluated various shoreline protection alternatives, including both "hard" and "soft" engineering solutions, for the Little Beach area. The most effective alternatives were found to be revetments, groins/jetties, raising the houses, and beach nourishment. The two primary alternatives that will protect the landform while slowing the longshore transport of sand are revetments and groins/jetties. Properly designed and constructed revetments should prevent the erosion of the landform and therefore will result in sedimentdeprivation for areas downdrift of the revetments. However, in the Little Beach area the primary long-term source of sediment for the beaches and dunes will be from the breakup and shoreward migration of South Beach. Nevertheless, downdrift monitoring of the beach profile should be done and mitigation in the form of beach nourishment should be conducted if needed.

47. The recommended plan put forth by ACI in the DEIR proposes that a continuous revetment be initially constructed as far landward as possible, and extending from the Nelson property on the north to the Hicks property on the south. Constructing the revetment as far landward as possible will maximize the natural protective attributes of the beach/dune system. Erosion will progress from north to south once the barrier spit begins to break- up and migrate southward and westward. A continuous revetment will prevent the end scour and flanking problem associated with revetments. The DEIR stresses the importance that the proposed revetment be constructed as a contiguous structure. Discontinuous sections of revetment would result in potentially severe impacts on adjacent properties and a gap in the revetment would compromise the integrity of the entire structure. The

recommended plan also proposes that a series of temporary wood or steel sheet pile groins be constructed to slow the loss of fronting beach. The groins would be filled with sediment to entrapment capacity after construction. Maintaining the groins filled to entrapment capacity will ensure that sediment transported alongshore by-passes thegroins thereby preventing any interference with alongshore sediment transport. In order to keep the groins filled to entrapment capacity as the shoreline retreats they should either be shortened and removed in sections or artificially filled with sand.

48. The recommended revetment must be constructed as a contiguous structure in order to maintain its structural integrity. The DEIR states that a gap in the revetment would compromise the integrity of the entire revetment. This would occur because a discontinuous revetment would be flanked at its ends and the supporting material would erode leading to the collapse or failure of the revetment. The probability of structural failure for a discontinuous revetment is high due to the unconsolidated nature of the landform (dune deposits), the low elevation of the sites, and the intense coastal processes expected in this area in the future.

49. The recommended plan is intended to slow the expected erosion but is not intended to provide protection from flooding. The Little Beach area is low in elevation and floods from more than one direction. Flood protection can only be achieved by raising structures and by taking other flood-proofing measures.

50. The ACI recommended revetment would be constructed as a contiguous structure and would be located almost entirely landward of the coastal dune delineated under the Wetlands Restriction Order. The ACI recommended plan is designed to prevent adverseimpacts to adjacent or downdrift properties and

therefore would comply with the terms of the Wetland Restriction Order.

51. As substantiated in the EIR, the ACI recommended plan will cause negligible long-term impacts. This is in large part related to the unique nature of the 150 year erosion cycle in Chatham. The cycle of the Nauset barrier beach system indicates that the Applicants' properties will eventually receive protection due to southward moving littoral drift causing North Beach to migrate southward over time. As a result of this littoral drift, the focus of coastal erosion will begin to shift south of the Applicant's properties. At that time the Little Beach area will no longer be subject to direct wave attack from the Atlantic Ocean and therefore the presence of the revetments will pose no environmental threat. Further, at that time the groins should be removed since they will no longer be needed and the beaches should be restored either through natural processes or through an on-going condition in the Order of Conditions that requires beach restoration (nourishment).

52. In order to implement the ACI recommended plan and to ensure that appropriate actions and mitigation are effectuated, I would recommend that a single entity, possibly the Town of Chatham, file a Notice of Intent for the entire project. This would ensure that the recommended revetment be constructed in a continuous manner (without gaps) and that mitigation would be coordinated throughout the lifetime of the project.

Signed under the pains and penalties of perjury.

James Mahala

Date : _____

EXHIBIT 2

COMMONWEALTH OF MASSACHUSETTS

APPEALS COURT

NO. 92-P-827

ALFRED NELSON, ET AL.,

Plaintiffs - Appellants,

v.

COMMONWEALTH OF MASSACHUSETTS, ET AL.,

Defendants - Appellees

AFFIDAVIT OF MARY F. CONNOLLY

I, Mary F. Connolly, do hereby state and depose of my personal knowledge as follows:

1. I am a paralegal in the Environmental Protection Division of the Office of the Attorney General.

2. I accompanied Assistant Attorney General Madelyn Morris and was present for the September 20, 1993 hearing on plaintiffs' appeal of the Superior Court Order dismissing the plaintiffs' regulatory taking claim and upholding the Wetlands Regulations.

3. At the hearing, I heard Assistant Attorney General Morris state that the plaintiffs' had not applied for a variance to build a seawall, even though the Department of Environmental Protection eliminated the $4,000 fee for requesting a variance.

5. At the hearing, Assistant Attorney General Morris estimated that DEP could review the request for a variance in about thirty days.

6. At that point, the Court urged Assistant Attorney General Morris to have DEP respond promptly to plaintiffs' request for a variance after the receipt of plaintiffs' application. The Court further indicated that it would not look favorably upon delay by DEP in responding to the variance request.

7. I did not hear the Court issue an order of any kind during the hearing on September 20, 1993.

SIGNED THIS 1ST DAY OF NOVEMBER 1993 UNDER THE PAINS AND PENALTIES OF PERJURY.

Mary F. Connolly